

REPORT
OF THE
Indian Tariff Board
REGARDING THE
GRANT OF PROTECTION
TO THE
MAGNESIUM CHLORIDE
INDUSTRY

(including the Evidence recorded during the enquiry)

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Part I.—Report.



सत्यमेव जयते

Report of the Indian Tariff Board on the grant of Protection to the Magnesium Chloride Industry.

The question of the grant of protection to the magnesium chloride industry was referred (along with four other industries) to the Tariff Board for enquiry in the Resolution of the Government of India in the Commerce Department No. 38-T., dated the 10th April 1924, which is reproduced below:—

Introductory. “ In pursuance of paragraph 3 of the Resolution of the Government of India, Department of Commerce, No. 3748, dated 10th July 1923 (Tariffs), the Government of India have decided to refer to the Tariff Board for examination applications for protection received from the following industries, *viz.*, * * * * * magnesium chloride.

2. In making its enquiry, the Tariff Board will be guided by the principles laid down in the resolution adopted by the Legislative Assembly on February 16th, 1923, and in particular, will consider how its recommendations, if it makes any, will affect industries using these articles. The Tariff Board will conduct its enquiry into these applications in any order it deems most convenient.

3. Firms or persons interested in any of these industries or in industries dependent on the use of these articles, who desire that their views should be considered by the Tariff Board, should address their representations to the Secretary to the Board, Simla.”

2. The manufacture of magnesium chloride in India is carried on both in the Madras and in the Bombay Presidencies. As regards the former, however, we have little or no information. The Madras Government drew our attention to the fact that the Shomtir Salt Company, Limited, desired to tender oral evidence before us when we visited Madras. In reply we pointed out that, before oral evidence could be taken, it was necessary for the firm to supply us with written answers to the questionnaire drawn up by the Board, and a copy of the questionnaire was forwarded for that purpose. As no subsequent communication was received from the Shomtir Salt Company, Limited, either direct or through the Government of Madras, it is presumed that they abandoned their intention to give evidence. In the Bombay Presidency magnesium chloride is manufactured at two places in the desert of Cutch—Kharaghoda and Kuda—both of them important salt areas. The latter (Kuda) is situated in the Dhrangadra State, but the Durbar have not supplied us with any details as to the results obtained

Manufacture of magnesium chloride in India

or the cost of production. They state, however, that the manufacture had to be abandoned as the local product was unable to compete with the imports from Germany. In these circumstances, the case for protection rests solely on the evidence tendered by the original applicants, the Pioneer Magnesia Works.

3. The grounds on which protection is advocated are fully stated in the Memorandum submitted on behalf of the Pioneer Magnesia Works with their original application and in their answers to the Board's questionnaire. Owing to the absence of the General Manager of the Works in Europe, it was impossible to record the oral evidence of the firm until his return in November, when he was examined at Poona. The written evidence was, however, published on the 22nd July, and all those interested in the subject were invited to address the Board. The only representations received were from the Bombay Chamber of Commerce and the Bombay Mill-owners' Association. Oral evidence was also given by representatives of the latter body.

4. A lucid and succinct account of the magnesium chloride industry has been given in a pamphlet written by Mr. B. S. Lalkaka, General Manager of the Pioneer Magnesia Works, and, as this pamphlet has been printed as part of the evidence, it is unnecessary to describe the process of manufacture in detail. The raw material consists of "bitterns," which is the name given to the residual mother liquor left in the salt pans after the bulk of the sodium chloride (common salt) has been removed. When the bitterns are run off the pans, they are collected and brought to the Pioneer Magnesia Works by means of a motor rail waggon with a special tank attachment. The collection of the bitterns takes place some time in advance of manufacture, and they are allowed to concentrate in reservoirs where the final removal of the residue of the common salt is also effected. At the time of manufacture the bitterns are pumped to a series of copper pans placed over furnaces where the magnesium sulphate and other salts are eliminated. The magnesium chloride is finally recovered as a hot liquid which is poured into strong galvanized drums where it solidifies and is ready for export from the factory. The process of manufacture is a simple one and does not involve the employment of expensive expert labour or the use of elaborate and expensive machinery.

5. Magnesium chloride is used for a variety of purposes, including the manufacture of tiles and of drugs such as Epsom salts, and it is possible that the market for it may widen. But at present its chief use in India is as a sizing material in textile mills, the consumption for other purposes being almost negligible. All warp yarn, before being taken to the loom shed, generally requires to be passed through a size mixture in order to keep the thread pliable and soft and to enable it to stand wear and tear. Magnesium chloride is not only hygroscopic in character, and there-

for useful in keeping the thread moist, but also possesses weight-giving properties and is apparently the most suitable and desirable sizing material hitherto discovered. Its use in textile mills in India varies according to the texture of the cloth woven and the dryness or humidity of the atmosphere. At Ahmedabad, where the climate is very dry and hot and where much heavily-sized cloth is woven, the consumption of magnesium chloride is proportionately much larger than in Bombay. Mr. Lalkaka believes that the consumption per loom in Ahmedabad is about double the consumption in Bombay, while the representative of the Mill-owners' Association put the figure even higher, and stated that the consumption per loom was four times as great in Ahmedabad.

6. Before the war, Germany enjoyed something approaching to a monopoly of the world's production of magnesium chloride. At Stassfurth in Germany production of magnesium chloride. At Stassfurth in Saxony there are extensive and very valuable deposits of a mineral called "carnallite," which is a double-chloride of potassium and magnesium with traces of bromine and iodine. Magnesium chloride apparently forms the greater portion of the carnallite and must be eliminated before the more valuable potassium salts can be recovered. It is therefore essentially a bye-product and, since the manufacturer must in any case incur the expense of its removal, whether he can sell it or not, he can afford to dispose of it at a very low price. It is obvious, therefore, that in the production of magnesium chloride Germany has a great natural advantage, and it is this which has enabled her to capture the markets of the world. It is from Germany, indeed, that the requirements of the vast textile industry of Great Britain are supplied.

7. On the outbreak of the war the German supplies of magnesium chloride were, of course, cut off, and a serious shortage occurred in India, accompanied by a marked rise in the price. Pioneer Magnesias Works started during the War. In textile mills other materials, such as calcium chloride, can be used, and were used, as substitutes, but they are inferior, and attention was naturally directed to the possibility of manufacturing magnesium chloride in India. The investigations made led to the establishment of the Pioneer Magnesias Works at Kharaghoda in 1916. During the remaining years of the war and for three years thereafter, prices remained high and the Company was exceedingly prosperous. After royalties amounting to Rs. 2.5 lakhs had been paid to Government and the block account had been written down to about 15 per cent. of its original value, the surplus profits during the first six years exceeded Rs. 3.8 lakhs, i.e., more than two and a half times the fixed capital expenditure of the Company. But in 1922 the price dropped rapidly, and by the end of the year had reached a point which made it necessary to close the factory. During the last two years production has ceased, and the Company has confined itself to the gradual liquidation of its accumulated stocks.

8. It is claimed on behalf of the industry that it satisfies the conditions laid down by the Fiscal Commission as necessary preliminaries to the grant of protection, and in the case of two of these conditions the claim has been made good. The supplies of the raw material are enormous and far exceed the quantity necessary to meet the whole requirements of India. It has been calculated that at Kharaghoda alone from ten to twelve thousand tons of magnesium chloride could be produced annually, whereas the total Indian consumption is at present in the neighbourhood of four thousand tons a year. It is asserted that an equal quantity could be produced in the Dhrangadhra State, and probably these two together are only a small part of the total resources of India. At Kharaghoda also the bitters can be brought cheaply and economically to the factory, since the salt pans are served by a net-work of more than 40 miles of railway line, and these can be utilized by the Magnesia Works. The process of manufacture, as already noted, is a simple one, no elaborate or expensive machinery is required and the initial capital outlay is extraordinarily small in proportion to the value of the product. The full capacity of the Kharaghoda works is 4,000 tons annually, and the fixed capital expenditure is less than Rs. 1.5 lakhs. The capitalization per ton of output is therefore only Rs. 37, and the sum required to give a 10 per cent. return on the capital invested is less than Rs. 4 per ton of output, or 3 annas a cwt.

9. In other respects the conditions are favourable to the industry. Labour is cheap and plentiful at Kharaghoda, and the Agarias who work in the salt pans are a hardy and industrious class and well suited to the work. One important market—Ahmedabad—, with a total consumption of about 1,200 tons, is only 60 miles from the Works. To reach the still more important market of Bombay, a distance of 375 miles must be traversed, and here the industry's advantage is more questionable. But the distances in India are so great that, if industries are to exist at all, a lead of nearly 400 miles cannot be treated as prohibitive. Finally, it is claimed that the industry is advantageously situated as regards fuel, but this claim does not appear to be well founded. The fuel used is wood which has sometimes to be brought from a distance of 100 miles, and the cost at the Works is given as from Rs. 35 to Rs. 40 per 50 Bengal maunds which is equivalent to from Rs. 18 to Rs. 21 per ton. Firewood at these prices is certainly anything but cheap, and the fuel item accounts for more than 40 per cent. of the manufacturing costs proper.

10. It is unnecessary to discuss at length the second of the primary conditions, *viz.*, that without protection the industry will not develop at all, or will not develop so rapidly as the national interests require. It will appear clearly from the cost figures given in later paragraphs that, with imported magnesium chloride at the average prices of the last two

Natural Advantages of the Industry. Raw Material.

Other natural advantages. Labour and Market.

Continuance of the industry impossible without protection.

years, the manufacture in India cannot be carried on except at a heavy loss. We shall therefore pass on at once to the third condition that an industry asking for protection ought to be able to show that eventually it will be able to hold its own and face world competition without assistance. In the examination of this question the two crucial points are the probable price of the imported article and the probable cost of production in India.

11. Before the war, the c.i.f. price of German magnesium chloride in Bombay was about Rs. 3-8-0 a cwt. From 1915 to 1921 the Trade Returns reveal how serious was the shortage of supplies, the recorded values being between Rs. 12 and Rs. 14 a cwt. during all these years. The market price in Bombay was much higher, and in 1920 rose to Rs. 19 a cwt. But this high level was succeeded by a precipitous decline during the next two years. According to the Trade Returns, the average value of the imports was Rs. 9-10-0 a cwt. in 1921-22 and Rs. 5-6-6 a cwt. in 1922-23. By April 1923 the c.i.f. sterling price had fallen to £4-5-0 a ton, or Rs. 3-3-0 a cwt. (Re. 1=1s. 4d.), and in June of the same year low-water mark was touched when the c.i.f. price fell to £2-17-6, or Rs. 2-2-6 a cwt. For the next seven months the c.i.f. price varied from £3-0-0 to £3-10-0 a ton, but from February 1924 a continuous increase took place, which raised the price to £5-0-0 a ton in September and £6-2-6 a ton in October 1924. With the sterling exchange at 1s. 6d. these prices are equivalent to Rs. 3-5-4 and Rs. 4-1-4 a cwt. These quotations were kindly supplied to us by the Sizing Materials Company, Limited, Bombay. Mr. Lalkaka, when giving oral evidence on behalf of the Pioneer Magnesia Works, expressed the belief that the lowest c.i.f. price in 1923 had been £1-17-0 which, with the rupee at 1s. 4d., would be equivalent to Rs. 1-8-5 a cwt. It is possible that particular consignments entered the country at this extraordinarily low price, and it is certain that in the summer of 1923 the market price of magnesium chloride in Bombay was for a time about Rs. 1-8-0 a cwt. But we do not believe that the average c.i.f. price for any month ever reached such a low level, and we think that the figures supplied by the Sizing Materials Company, Limited, can be accepted as accurately recording the general course of prices. The actual market price in Bombay in 1923 seems to have been due to heavy importations and overstocking.

12. The very wide fluctuations in the price of magnesium chloride during the last three or four years create obvious difficulties when it is necessary to ascertain a normal or standard price. It is most improbable that prices will permanently settle down at the very low level touched in 1923, for, after the cost of packing and transport had been met, there would be little or no margin left for the producer in Germany. But at what higher level prices will ultimately be stabilised it is exceedingly difficult to say. The rise of prices in 1924 may be connected with the stabilisation of the German Mark and may also, it is

Prices of magnesium chloride since 1914.
Difficulty of determining normal price of imported Magnesium Chloride.

suggested, be due in part to the operations of a selling ring or syndicate in Germany. In that case a relapse from the November price is inevitable, and, according to the latest information, supplied by the Pioneer Magnesia Works, has actually taken place. Mr. Lalkaka believes that the normal post-war price will eventually be about the same as it was prior to 1914, i.e., from Rs. 3 to Rs. 3-8-0 a cwt. c.i.f. Bombay, but there are no data which could enable us to determine whether this expectation is well grounded or not. Germany is in a position to determine the world price of magnesium chloride, and until conditions in that country approach the normal, it is impossible to predict with confidence the course of prices. In these circumstances the price may continue to fluctuate violently for some time longer, and it becomes exceedingly difficult to take any particular price as a standard. The Management of the Pioneer Magnesia Work must themselves be conscious of this difficulty, for in the Memorandum presented to the Government of India in October 1923 it was suggested that a protective duty of 200 per cent. would be required, whereas in the answers to the Board's questionnaire submitted in June 1924 a duty of 50 per cent. was asked for.

13. The Pioneer Works have given figures showing their cost of production for each year since manufacture commenced, and have also at our request submitted a statement showing the reductions of cost anticipated if something approaching a full output could be attained. In this statement the present annual output has been taken at about 1,000 tons and the future output at 3,000 tons. We think these figures are reasonable. It would not be worth while to operate the factory at all for less than 1,000 tons (it means about 4 months' working in the year), and this quantity is approximately what could be sold in Ahmedabad, supposing that market could be captured completely. On the other hand, with an output of 3,000 tons the factory would be kept open throughout the year, and it is not likely that much more than 3,000 tons could be sold in Bombay and Ahmedabad together if the mills were entirely dependent on Indian supplies. It will be desirable to review briefly the various items which go to make up the total cost.

14. The manufacturing costs proper have been divided under three sub-heads. The details are as follows:—

	1922 COSTS PER CWT.	ESTIMATED FUTURE COSTS PER CWT.		
	Output of 1,353 tons.	Output of 1,000 tons.	Output of 3,000 tons.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Collection and storage of bitters	0 4 11	0 5 0	0 4 0	
Factory charges	0 5 6	0 6 0	0 5 0	
Fuel	0 7 7	0 8 0	0 7 0	
	1 2 0	1 3 0	1 0 0	

The estimated costs for the lower output are slightly higher than those for 1922, when the cost of production was lower than in any previous year. A reduction of 3 annas a cwt. when full production is attained seems a reasonable expectation, but it is likely to be secured mainly under 'Factory charges,' for there is no particular reason why a higher output should lead to lower costs under the other two sub-heads. The labour employed in collecting bittorns is paid at piece rates and wages are admittedly low, while an increased consumption of firewood might tend to raise prices against the Company, or necessitate obtaining supplies from a greater distance.

15. In order to arrive at the all-in cost f.o.r. Works, account All-in costs f.o.r. Works. has to be taken of the Head Office and general charges, packing, interest and depreciation. The details are as follows:—

	1922 COSTS PER CWT.	ESTIMATED FUTURE COSTS PER CWT.					
	Output of 1,353 tons.	Output of 1,000 tons.			Output of 3,000 tons.		
		Rs.	A.	P.	Rs.	A.	P.
Manufacturing costs	1 2 0	1	3	0	1	0	0
Head Office and general charges	0 6 5	0	4	9	0	3	2
Drums and packing	0 9 9	1	0	0	0	14	0
Interest	0 4 9	0	9	9	0	4	8
Depreciation	0 7 0	0	9	6	0	3	2
All-in cost f.o.r. works	2 13 11	3	11	0	2	9	0

(i) A reduction of 33 per cent. in the Head Office* and general charges is not an unfair assumption, but these charges have, we think, been underestimated. Even when the output exceeded 1,800 tons, the Company never succeeded in bringing these charges below 6 annas a cwt. We think the estimated costs should be put at Re. 0-7-0 for an output of 1,000 tons, and Re. 0-4-8 for an output of 3,000 tons.

(ii) The cost of packing is a very heavy item and nearly equals the manufacturing costs proper. The Company expect to reduce the cost by 2 annas a cwt. when the full output is attained, but there seems to be no warrant for this assumption. The estimated cost must, we think, be taken at Re. 1 per cwt. whatever the out

* This sub-head covers Establishments, Allowances, etc., Travelling, Rents and Taxes, Insurance and Sundries.

put. The low cost of this item in 1922 is misleading, and apparently the cost of some of the drums used was debited in the accounts of the previous year.

(iii) The interest charges have been estimated at 7 per cent. on a capital of Rs. 1.75 lakhs for an output of 1,000 tons and Rs. 2.5 lakhs for an output of 3,000 tons. If these sums are intended to cover working capital only* they are a great deal too high. According to the Company's own figures, the out-of-pocket expenditure on a production of 1,000 tons is not more than Rs. 50,000, and for 3,000 tons it is proportionately lower at Rs. 1.35 lakhs. When the factory is working for only 4 months in the year, and large stocks have to be held, the cost of one year's production seems a fair estimate of the working capital required. When the factory is working throughout the year, 8 or 9 months' output may be taken. On that basis the working capital needed is Rs. 50,000 for an output of 1,000 tons and about Rs. 1 lakh for 3,000 tons. The interest charges would then be Re. 0-2-10 a cwt. for the lower output, and Re. 0-1-10 for the higher.

(iv) The figure for depreciation is in each case the amount admissible at Income-tax rates on the Company's machinery and buildings divided by the output.

(v) With the corrections indicated in this paragraph the all-in cost f.o.r. Works becomes:—

	ESTIMATED FUTURE COSTS PER CWT.					
	Output of 1,000 tons.			Output of 3,000 tons.		
	Rs.	A.	P.	Rs.	A.	P.
Manufacturing costs	1	3	0	1	0	0
Head Office and general charges	0	7	0	0	4	8
Drums and packing	1	0	0	1	0	0
Interest	0	2	10	0	1	10
Depreciation	0	9	6	0	3	2
	3	6	4	2	9	8

16. Between the factory and the consumer the charges which have to be incurred are heavy. They include railway freight, transport and handling and selling charges. The two former
 Rail and transport charges.

* It is not clear whether the Company have, or have not, included interest on the fixed capital expenditure in these estimates.

should naturally be considered together. The Company have given the total transport charges they have to meet between the Works and the mill at Bombay as Rs. 1-8-0 a cwt. This figure was arrived at as follows:—

	Rs.	A.	P.
Railway freight from Kharaghoda to Bombay	0	12	0
From Railway station to Agent's godown	0	6	0
From godown to mill	0	6	0
	<hr/>		
	1	8	0

It is obvious that the double handling adds substantially to the cost, and the Company are endeavouring to induce the mills to accept consignments in full waggon loads which would reduce the cost substantially. Apart from that, the freight to Bombay has been reduced to Re. 0-8-9 a cwt. as a temporary concession for a period of 6 months only. If this lower freight is continued, the Company expect to bring down their transport charges on consignments to Bombay to Re. 1 a cwt. on the average, but apparently they have no hope of effecting any further reduction. The figures per cwt. would then be:—

	Rs.	A.	P.
Railway freight to Bombay	0	8	9
Transport and handling	0	7	3
	<hr/>		
TOTAL	1	0	0

The railway freight to Ahmedabad is Re. 0-3-9 a cwt. and to this must be added the town duty of Re. 0-2-1 a cwt., or Re. 0-5-10 per cwt. in all. For the other transport and handling charges the Company have not given separate figures, and they must presumably be taken as not less than in Bombay.

17. The selling charges in 1922 amounted to Re. 0-10-8 a cwt. This figure appears to us to be exceedingly high, and forms a substantial percentage of the total price realized. We endeavoured to ascertain whether in the view of the Company itself it was not excessive, but apparently these charges are regarded as inevitable. In formulating proposals for the grant of protection it would be necessary to consider carefully what allowance should be made on this account. Meanwhile, when the question at issue is the Company's claim that protection can eventually be dispensed with, they must be taken on the basis of the Company's own statements.

All-in cost delivered mill
and price required.

18. The final result of the analysis
attempted in the foregoing paragraphs is
as follows:—

	1922 COSTS PER CWT.	ESTIMATED FUTURE COSTS PER CWT.	
		Output of 1,000 tons.	Output of. 3,000 tons.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
All-in cost f.o.r. Works . . .	2 13 11	3 6 4	2 9 8
Railway freight	0 5 7	0 8 9	0 8 9
Transport and handling . . .	0 8 2	0 7 3	0 7 3
Selling charges	0 10 8	0 10 8	0 10 8
All-in cost delivered mill . .	4 6 4	5 1 0	4 4 4
Manufacturer's profit	0 8 5	0 11 4	0 3 9
Price required to give a reasonable return on capital.	4 14 9	5 12 4	4 8 1

In the first column of the above table the railway freight and transport, handling and selling charges have been calculated on the sales of the year and not on the production. The great bulk of the sales were in Ahmedabad, and it is for that reason that the railway freight is low. The railway freight in the second and third column is that to Bombay. The manufacturer's profit in all three columns is 10 per cent. on the Company's fixed capital expenditure of Rs. 1.42 lakhs divided by the output. It will be seen that, with the output limited to 1,000 tons a year, a price of Rs. 5-12-0 a cwt. at Bombay is required, and with an output of 3,000 tons a price of about Rs. 4-8-0 a cwt. It is in the light of these figures that the claim to protection must be considered.

19. Before we discuss the inferences to be drawn from a comparison of the cost figures with the import prices, it will be convenient to deal briefly with the evidence of the two Public Bodies who addressed us. The Bombay Chamber of Commerce and the Bombay Millowners' Association. of protection on the double ground that, if a duty of 200 per cent. is required to keep the industry alive, it would be wholly unsound to impose it, and also that the imported product is more uniform and superior in quality. The Mill-owners' Association, Bombay,

on the other hand, give a qualified support to the application, notwithstanding the fact that it must raise the cost of a raw material used in cotton manufacture. They are prepared to agree to a fifty per cent. duty, provided it is continued for only a limited number of years and then gradually reduced to the ordinary revenue level. They ask for a reasonable assurance that, if this protection is given, the industry will eventually be able to supply the textile trade of India with the whole of its requirements without extraneous aid, and also some guarantee of the quality of the Indian product to ensure that the purchaser will not be placed at a disadvantage.

20. It is clear that what the Mill-owners contemplate is protection for a period only, until the magnesium chloride industry can carry on unaided, and this is what the Fiscal Commission regarded as legitimate protection in normal circumstances. But in the oral evidence Mr. Stones, who represented the Association, added an important qualification. He expressed the view that, even when the period of protection had expired, it would still be necessary to give the industry special assistance from time to time, during periods when the price of the imported article was abnormally low. He emphasised the fact that in Germany magnesium chloride was practically a waste product, and for that reason the German manufacturer could sell at an exceptionally low price. The competition which the Indian industry has to face is therefore of the most formidable kind. It would seem that the Mill-owners' Association is doubtful whether the manufacture of magnesium chloride in India can ever dispense entirely with outside assistance. If these apprehensions are well founded protection once given, might continue indefinitely. It is obvious also that, if no lower limit can be set to the price of the imported product, the determination of the amount of protection required at the outset becomes extraordinarily difficult.

21. The demand for a guarantee of quality is also significant. When Mr. Stones was asked whether the Association as a body considered that the Kharaghoda product satisfied the condition laid down, he expressed his own opinion that it did, but admitted frankly that two-fifths of the members were of a different opinion. The three points regarded as of importance are absence of free iron, refinement and colour. There is really no evidence that in the first two points the Indian product is defective. Mr. Stones informed us that none of the mills alleged the existence of free iron in magnesium chloride made at Kharaghoda, and the tests made both in the Government laboratories and by the mill chemists have been perfectly satisfactory. But the colour is admittedly inferior. The Indian product has a greyish colour which the Pioneer Magnesia Works have hitherto found it im-

Doubt as to the ultimate prospects of the industry in face of German competition.

Quality of Indian magnesium chloride.

possible to get rid of. The Management contend that this colour makes no difference in actual use, and Mr. Stones is of the same opinion. But he admitted that other mills took a different view, which was shared even by some of the staff of his own mill. The evidence we have taken leads us to think that the quality of the magnesium chloride made at Kharaghoda is satisfactory, and that the prejudice against it would gradually be overcome. But, unless the greyish colour can be removed, the process is likely to be a slow one, and the difficulties of the Indian manufacturer are greatly increased. Mr. Stones told us that, personally, he would pay as much for the Indian product as for the German, but that most mills would not buy Indian magnesium chloride unless it was cheaper by anything from four annas to one rupee a cwt.

22. The Mill-owners' Association kindly furnished us with figures which make it clear that the burden thrown on the cotton industry, if magnesium chloride were protected, would be almost inappreciable. The cost of magnesium chloride is only from .05 to .08 per cent. of the total works costs. Even if a duty of 200 per cent. were imposed, the cost of a thousand yards of cloth would be raised only by 4 to 6 annas, which is less than one-tenth per cent. The Association recognise that a difference of this kind is negligible, but they are naturally apprehensive that, if a precedent were once created, protective duties would be imposed on other materials also, and the cumulative effect of a series of such duties might be far from negligible.

23. From what has been said in the last two paragraphs it will be clear that the application for protection cannot be rejected either on the ground that the magnesium chloride made in India is inferior, or because of the consequential effect on the textile industry. These objections are not valid, and everything therefore depends on the view taken of the future prospects of the industry. Before we discuss this crucial question it may be well to refer briefly to the views of the Government of Bombay, which were explained in a letter, dated 9th January 1925. They believe it to be unlikely that the indigenous article can ever compete on level terms with the foreign article unless it can command an infinitely greater market than at present, and they consider that the industry should be helped to capture the Indian market. They point out, however, that for this purpose a very high protective duty would be necessary. A duty of 80 per cent. *ad valorem* would, they believe, put Indian magnesium chloride on a level with the imported article, but owing to the inferior colour of the Indian product, it would be necessary to raise the duty to 100 per cent. *ad valorem*. They recommend the imposition of a duty at this rate. When the Government of Bombay expressed these views, they had not before them the later figures supplied by the Pioneer Magnesia Works in December 1924, and it is not

Effect of protection for magnesium chloride on the textile industry.

Views of the Government of Bombay on protection of magnesium chloride.

necessary therefore to consider how far their estimate of the protection required is a reasonable one. But if in fact a duty of 100 per cent. *ad valorem* is necessary, a special obligation rests on the industry to show that the need is temporary.

24. We have alluded in paragraph 12 to the difficulty of determining under existing conditions the normal or standard price of imported magnesium chloride. The only definite forecast we have to consider is that put forward by the Pioneer Magnesia Works that the price will eventually settle down at the pre-war level of Rs. 3 to Rs. 3-8-0 a cwt. This would mean, with the exchange at 1s. 6d., a c.i.f. price of from £4-10-0 to £5-5-0 a ton. It would be premature, we think, to express any definite opinion as to the accuracy of this forecast, but it is not in itself an improbable one. Germany must inevitably be driven by circumstances to develop her export trade by every means in her power, and even though the average price was about Rs. 3-4-0 a cwt., there is no sort of guarantee that it would not frequently be lower. It may be useful, however, if we accept provisionally this price in order to determine the amount of protection required now, and also to test the claim that eventually the industry will be able to do without protection.

25. It was ascertained in paragraph 18 that, if the output were restricted to 1,000 tons a year, the price which gave the manufacturer a fair return was Rs. 5-12-4 a cwt. It is most improbable, however, that even in the first year of protection the output would be so small, and a larger output would mean lower costs. A deduction of 4 annas a cwt. on this account seems to be reasonable. Account must also be taken of the fact that ultimately one-third of the output might be disposed of in Ahmedabad, and that there the Indian producer has an advantage of about 12 annas per cwt. as compared with Bombay, both in respect of the lower freight from Kharaghoda to the market, and of the railway freight on imported magnesium chloride from Bombay. If an allowance of 4 annas a cwt. is made on this account, then the price required in Bombay is Rs. 5-4-0 a cwt. approximately. But the manufacturer will not in fact realise this price unless the cost of imported magnesium chloride is raised to Rs. 5-12-0 a cwt. at least. With the c.i.f. price at Rs. 3-4-0 a cwt. the cost, delivered at the mill, to a firm importing direct may be taken as Rs. 3-12-0. The duty required would therefore be Rs. 2 a cwt. But in view of the fact that the price may be expected to drop below its normal level not infrequently, some allowance would have to be made on that score. On the whole, we believe that a duty of Rs. 2-4-0 a cwt. would be required in the first instance to give the Indian product a fair chance of capturing the market. This duty would be a little over 70 per cent. on the c.i.f. price.

26. It has been shown in paragraph 18 that, with an output of 3,000 tons a year, and provided the cost of production is reduced to the extent anticipated, a price of Rs. 4-8-0 a cwt. gives the manufacturer a fair return. If, once more, allowance is made for the sale of one-third of the output in Ahmedabad, the price required in Bombay is Rs. 4-4-0. It will be seen that this figure exceeds by 8 annas a cwt. the cost, delivered at the mill, of the imported product.

27. We have carefully considered the facts and figures set forth in the foregoing paragraphs, and our final conclusion is that the claim to protection has not been made good. The applicants have failed in their attempt to show that eventually the industry will be able to dispense with extraneous assistance, and one of the conditions laid down by the Fiscal Commission has not been satisfied. But even if the prospects of the industry were more promising than they appear to be, the case would still present grave difficulty. It might well happen that the normal price of imported magnesium chloride proved to be substantially below Rs. 3-4-0 a cwt., and in that case all calculations would be falsified. Until the price of the imported product has approached stability, no reasonable assurance as to the prospects of the industry is attainable.

28. If the view put forward in the last paragraph is accepted and the claim to protection is negatived, it is likely that the manufacture of magnesium chloride in India will cease. But it does not appear that any important interest would be injured. The capital which would become unproductive is no more than Rs. 1½ lakhs, and the promoters of the Company have already received the value of their investment back twice over out of the profits of the prosperous years. Nor can it be pleaded that the continuance of the industry is necessary on national grounds. If, for any reason, supplies from Germany were cut off, there would be no difficulty in re-starting the industry at short notice. This was abundantly proved in 1915-16, and there is no part of the necessary plant which could not readily be improvised from materials obtainable in India. In these circumstances there are no valid grounds for asking the country to incur a sacrifice when there is no assurance of any compensating advantage in the future.

29. We are indebted to Mr. B. S. Lalkaka, General Manager of the Pioneer Magnesite Works, for the detailed information supplied by him at our request after his return from Europe. We desire also to acknowledge cordially the assistance we received from the written and

oral evidence of the Bombay Mill-owners' Association, and from the statements of prices supplied by importing firms.

G. RAINY--*President.*

P. GINWALA
V. G. KALE } *Members.*

G. C. F. RAMSDEN--*Secretary.*

February the 26th, 1925.



Part II.—Evidence.



सत्यमेव जयते

Press Communiqué.

No. 1.

(Dated the 17th April 1924.)

In the Resolution of the Government of India in the Commerce Department, applications for protection on behalf of the following industries have been referred to the Tariff Board:—

Magnesium Chloride.

The Board hope that those firms or persons engaged in the industries enumerated above, who consider that protection should be granted, will, if no representation on their behalf has yet been presented to the Government of India, submit their representations to the Board without delay.

2. It is the intention of the Board to obtain from the applicants full statements of the facts on which they rely in support of their claims, and for this purpose questionnaires have been drawn up specifying the points on which information is required. As soon as replies have been received, arrangements will be made to examine orally representatives of the firms applying for protection and the written and oral evidence taken will then be published. Thereafter all persons who consider that their interests are likely to be affected by the proposals made, or desire either to support or to oppose the claims to protection, will be invited to submit written representations to the Board and to say whether they desire to tender oral evidence in addition.

3. The Board believe that the procedure outlined above will conduce to the public convenience and will facilitate their enquiries. Until the case for protection has been developed and the most important facts have been ascertained, it is difficult for commercial bodies, or other persons interested, to understand exactly what is proposed or to express their views adequately on all aspects of the case. When opinions are invited, they will be asked for by a date so fixed as to allow a sufficient interval after the publication of the evidence for its study and examination. But since the Board's tour programme must be settled some time in advance, it is desirable that those who intend to give oral evidence, or think it likely that they will do so, should send early intimation to the Board.

No. 2.

(Dated the 22nd July 1924.)

In a communiqué dated the 17th April 1924, the Tariff Board outlined the procedure they had decided to adopt in their enquiries into the industries referred to them in the Resolution of the Government of India in the Commerce Department No. 38-T., dated the 10th April 1924. The first stage was to obtain the evidence of the applicants for protection, and the second to publish this evidence—whether written or oral—so that all interested might give their opinions after they had had an opportunity of considering the case put forward. The evidence tendered by the applicants for

protection in the magnesium chloride industry has now been published and copies may be obtained from the Manager, Central Publication Branch, 8, Hastings Street, Calcutta, price ten annas.

2. In the case of magnesium chloride, only one firm—the Pioneer Magnesia Works, Bombay, has applied for protection. The reasons which are held to justify the proposal have been fully developed in a memorial addressed to the Government of India, and in the replies to the Board's questionnaire. The firm have been unable hitherto to depute a representative for oral examination, but the written evidence contains a full statement of the case. The applicants consider that a protective duty of 200 per cent. *ad valorem* will be necessary if they are to compete successfully with the magnesium chloride imported from Germany.

3. The Board will be glad to receive written representations from all Public Bodies, Associations, firms or persons who desire to be heard regarding the grant of protection to the magnesium chloride industry.

Oral evidence will be taken as follows:—

At Calcutta, between the 21st August and the 6th September.

At Bombay, between the 9th and the 30th September.

At Madras, between the 1st and the 14th November.

At Rangoon, between the 19th November and the 2nd December.

It is necessary that those who desire to supplement their written representations by oral evidence should inform the Board with the least possible delay, so that the dates for taking evidence may be definitely fixed. This is particularly important for those who desire to be examined at Calcutta, where oral evidence will first be taken. The Board will leave Simla on the 29th July and, after visiting Dehra Dun, Lucknow and Katni, will arrive at Calcutta on the 10th August. The following dates have been fixed by the Board as the latest dates for receiving written representations or requests for taking oral evidence:—

Requests for oral examination at Calcutta	12th August.
Submission of written representations by those who desire to be examined orally at Calcutta	19th August.
Requests for oral examination at Bombay	22nd August.
Submission of written representations by those who desire to be examined orally at Bombay	1st September.
All other written representations	30th September.

The programme for oral examination at Madras and Rangoon will be arranged later. All requests for oral examinations should be addressed to the Secretary to the Board, No. 1, Council House Street, Calcutta, and should be despatched so as to arrive on or after the 1st August, the date on which the Board's office will open at Calcutta.

THE MAGNESIUM CHLORIDE INDUSTRY.

A.—QUESTIONNAIRE FOR APPLICANTS FOR PROTECTION.

I.—INTRODUCTORY.

1. When was the firm which you represent established? Is it a public or private registered Company, or is it an unregistered firm?

2. To what extent is the capital invested in your firm held by Indians? How many Indians are Directors? How many Indians (if any) form part of the superior management?

3. Does your firm undertake the manufacture of Magnesium Chloride only, or of other products as well? Please enumerate these other products (if any).

4. At what date did your Works commence to manufacture?

5. What is the full capacity of your Works as at present equipped for the manufacture of magnesium chloride?

6. What has been the actual output of the Works for each year since manufacture commenced?

7. Where are your Works situated? Do you consider it is advantageously situated in respect of—

(a) vicinity to the areas from which your principal raw materials are drawn;

(b) vicinity to the coalfields or other sources of power or fuel;

(c) vicinity to an important market;

(d) other considerations, such as the existence of an abundant labour supply?

What do you consider the most important factor in selecting the site of a Works for the manufacture of Magnesium Chloride in India?

8. Do you consider that your Magnesium Chloride is equal in quality and appearance to imported Magnesium Chloride? Does your Magnesium Chloride command the same price in competitive markets as imported Magnesium Chloride? If not, to what causes do you ascribe the lower price of the Indian product?

9. For what purpose or purposes is your product used in India?

10. Is the production of Magnesium Chloride at your Works limited to certain months of the year? If so, please explain the reason, and state whether the fact contributes to increase your cost of production as compared with the cost in other countries.

II.—RAW MATERIALS.

11. What are the raw materials used in your Works?

12. What are your annual requirements of raw materials according to the rate of output equivalent to the full capacity of the plant?

13. What quantity of each of the raw materials is required for the production of one ton of Magnesium Chloride?

14. From what area or areas does the factory draw its main supplies of the raw materials, and at what distance from the factory are they situated? If possible a map should be given showing the site of the Works and the areas from which supplies are drawn.

15. How is the raw material collected and by what means is it transported from the source of supply to the Works? If more than one means of transportation is employed, specify the distance covered by each such means.

16. What royalty (if any) per ton for raw materials is payable to Government or to private persons?

17. Please give the cost per ton delivered at the Works of the principal raw material (or materials) for the years 1916, 1918, 1921 and 1923, divided under the following heads:—

- (1) Royalty (if any).
- (2) Labour employed on extraction and collection.
- (3) Freight from the source of supply to the Works.
- (4) Miscellaneous charges.

18. What are the terms of your concession (or concessions) for the raw material? (A copy of the lease or other document in which the concession is embodied should be given.) Do you consider these terms favourable? If not, in what respect do you consider them unfavourable?

19. Do you find it necessary to import any raw materials? If so, please state from which countries you import them, and at what prices.

20. Have you to use any chemicals in the processes of your manufacture? If you do, please state the quantities required per ton of Magnesium Chloride.

21. Do you get any special freight rate by sea, river or rail for your raw materials? Do you consider you are at any disadvantage in this respect?

III.—LABOUR.

22. Do the processes of manufacture require much expert supervision involving the employment of skilled labour imported from abroad?

23. What number of imported labourers are employed at present, and what would be the number required if the factory were worked to full capacity?

24. What progress has been made since the factory was established in the substitution of Indian for imported labour? Is it anticipated that eventually the employment of imported labour will be unnecessary? What facilities are given to Indian workmen to acquire training in skilled work or for training apprentices?

25. How do the rates of wages paid to imported workmen compare with the rates paid for similar work in other countries?

26. What is the total number of Indian workmen employed, and what are the average rates of wages of the different classes?

27. Please give for the years 1916, 1918, 1921 and 1923:—

(a) the total wages bill for Indian labour at the Works;

(b) the average wages per man in the different classes.

The increases in the rates of wages should be stated, and the dates when they were given.

28. Is the Indian labour force sufficient? Is it drawn from the vicinity of the factory, or from other parts of India?

29. Has it been found that the Indian labourer improves with training? How does his efficiency compare with that of workmen in Western countries employed on similar work?

30. What arrangements have you made for housing your labour and for promoting its welfare in other directions?

IV.—POWER (INCLUDING FUEL).

31. Is the power used in the factory derived from electricity, or steam, or from some other source?

32. If steam power is used, is coal the fuel employed? If not, what is the fuel? Is the latter available in sufficient quantities?

33. What is the total quantity of fuel required per unit of output, whether for power production or for other purposes?

34. From what distance is the fuel brought, and what is the free-on-track price in the case of coal, and in the case of other fuel at the source of supply? And what is the cost of transport per ton in each case? If fuel is purchased locally, what is the price per ton delivered at the Works?

35. Do you own or control your own sources of supply of fuel? If so, how many years supply have you of the kind of fuel used by you?

36. If your fuel is wood, have you obtained any concession from the Government or other person? What is the royalty payable, and what are the conditions of the concession? (Supply a copy of your concession.)

V.—MARKET.

37. What is the total Indian production of Magnesium Chloride so far as it can be ascertained or estimated for the following years:—

1916.
1917.
1918.
1919.
1920.
1921.
1922.
1923.

38. What do you estimate is the total Indian demand for Magnesium Chloride?

39. Is it likely that the Indian demand will substantially increase in the near future? If so, what are the reasons for your belief?

40. In what parts of India are your principal markets situated, and what are the distances which separate them from the Works?

41. Are there any markets in India in which, owing to their distance from the ports, you are more easily able to compete against the foreign manufacturer? If so, please state which these markets are, and the approximate demand in each.

42. Do you consider that the export of Magnesium Chloride from India to any foreign countries is probable? If so, to what countries? Can you form any estimate of the quantities which India might eventually be able to export and which foreign markets will consume?

VI.—FOREIGN COMPETITION.

43. Which are the foreign countries from which competition in the Indian markets is keenest?

44. From what raw materials is the Magnesium Chloride made which is imported into India and competes with your product?

45. Do the conditions of manufacture in India differ materially from those adopted in competing countries? If so, what are the important differences?

46. Have the conditions in India led you to adopt a process of manufacture different from those adopted in the chief competing country? Are the latter attended by the production of bye-products tending to reduce the cost of manufacture? Do you consider that the foreign manufacturer has an advantage in this respect?

47. Please state—

(i) The prices at which imported paper has entered the country and been sold during 1916, 1918, 1921 and 1923.

(ii) The prices realised by you in each year since manufacture commenced.

If possible the f. o. b. price (in sterling) of imported Magnesium Chloride should be given and the following items shown separately:—

Freight.

Insurance and trade charges.

Customs duty.

Landing charges.

If this is not possible, then state the c. i. f. price *plus* Customs duty and Landing charges.

48. From what sources is information obtainable as to the prices at which imported Magnesium Chloride enters the country? How far do you consider the information obtained from these sources reliable?

49. Have you any reason to suppose that prices at which foreign producers sell for export to India are unremunerative, *i.e.*, below the cost of production, or do they leave only a small margin of profit to the producer? If so, please state fully your reasons and the evidence on which you rely.

50. In which of the Indian markets is foreign competition keenest?

51. To what causes do you attribute the low prices at which foreign Magnesium Chloride has entered India since the war? How far do you consider these causes permanent or temporary?

52. Please compare the freight you have to pay to reach your markets in India with the total freights—sea and rail—payable on imports to the same markets.

53. Compare the Railway freight paid by importers from the ports to selected up-country markets and the Railway freights paid on the produce of your Works to the same markets.

N.B.—What is desired is concrete instances giving the name of the port, the names of the up-country station, the distances, rates per maund per mile, etc.

54. Have any instances recently come to your notice in which Continental Magnesium Chloride has been re-exported from the United Kingdom as British manufacture? If so, please give the evidence on which you rely, and state whether you ascribe the fact to depreciated exchanges or to other causes.

55. Do you consider that, as compared with the foreign manufacturer, the Indian manufacturer is at a disadvantage in all or any of the following points—

- (a) the cost of plant and machinery;
- (b) the cost of expert labour;
- (c) the cost or efficiency of ordinary labour;
- (d) the collection and transport of raw materials;
- (e) the cost of raw materials and consumable stores;
- (f) freights on finished goods;
- (g) the maintenance of stocks of spare parts;
- (h) customs duty on imported materials,
- (i) the raising of capital.

Where possible, definite figures should be given, *e.g.*, comparing the cost of plant and machinery erected in India with the corresponding cost in Western countries, or comparing the wages of imported expert workmen in India with the wages they would draw in their own countries. If there are "seasonal" difficulties in connection with the collection and transport of the principal raw materials, these should be explained.

56. Which of the disadvantages mentioned in your answer to question 55 do you regard as permanent and which as temporary? For what period, in your opinion, are the temporary disadvantages likely to operate?

VII.—EQUIPMENT.

57. Do you consider that your works are sufficiently large as an economic unit of production to ensure economy? What, in your opinion, is the smallest unit of production which can be operated economically under present-day conditions?

58. Does the manufacture of Magnesium Chloride require the use of elaborate and expensive machinery?

59. What percentage of your total capital outlay has been incurred on plant and machinery?

60. Give a brief description of your plant and machinery, and the process of manufacture you have adopted.

61. Do you consider your machinery and other equipment, and also the processes of manufacture, sufficiently up-to-date and efficient to enable you to compete successfully against the foreign manufacturer?

62. Have you, since 1916, adopted any new processes of manufacture, or have you installed new plant and machinery in replacement of, or in addition to, the old plant? If so, give a brief description of them and state whether the results have fulfilled the expectations entertained.

63. What parts of the machinery, if any, are made in India?

VIII.—CAPITAL ACCOUNT.

64. What is the block value of your property, as it stood in your books at the end of the last complete year for which figures are available, under the following heads—

- (a) Leases and concessions.
- (b) Lands.
- (c) Buildings.
- (d) Plant and Machinery.
- (e) Other miscellaneous assets.

65. Do the figures given in answer to question 64 represent the actual cost of the various assets, or their value after depreciation has been written off? In the latter case, please state the total amount written off for depreciation since manufacture commenced, and in the former case the total of the depreciation found (if any) which has been accumulated.

66. Apart from any question of an increase in the replacement cost of plant and machinery due to a general rise in the price level, are the sums actually set aside for depreciation since manufacture

commenced equal to, greater than, or less than, the sums which ought to have been set aside according to the rates of depreciation which you consider suitable? (See Question 81.)

67. What do you estimate would be the present-day cost under the heads (a) buildings, and (b) plant and machinery, of erecting a Works having the same output as your present Works? How does the figure compare with the block value of your present Works under the same heads, and would the operating cost of a new Works established now be greater or smaller than yours?

68. What is the total (a) authorized, (b) subscribed, (c) paid up capital of the Company? How is it divided between Preference, Ordinary and Deferred shares?

69. At what rate of interest is the dividend payable on the Preference shares? Are these shares entitled to cumulative dividends? If so, state the dates on which they were first entitled to rank for dividends, and whether any dividends are in arrears.

70. Under what conditions do the Deferred shares participate in the profits of the Company?

71. Please prepare a statement showing for each year since the establishment of the Company—

- (a) the amount of the paid up share capital (Preference, Ordinary and Deferred) ranking for dividend,
- (b) the actual amounts distributed as dividends on each class of capital, and
- (c) the percentage on the paid up share capital of each class which the dividend represented.

72. What is the average rate of dividend on the Ordinary shares for the full period?

73. What is the amount of the debenture loans (if any) raised by the Company? At what dates were they issued, and what is the rate of interest payable? If any period has been fixed for the redemption of the debenture loan, it should be stated. Similarly, if a debenture sinking fund has been established, the annual rate of contribution should be given.

74. What is the amount of the Reserve Fund (if any) created by the Company? Has this amount been accumulated from surplus profits, or from other sources, *e.g.*, by the issue of shares at a premium?

75. What additional capital (if any) would it be necessary to raise in order to carry out any scheme of replacement or extension of plant which the Company contemplate?

IX.—COST OF PRODUCTION.

The cost of production falls under two heads:—

- (a) works costs, and
- (b) Overhead charges.

The latter head—overhead charges—includes :—

- (i) Interest on working capital.
- (ii) Depreciation.
- (iii) Head office expenses and Agents' commission.

The head ' Works Cost ' covers all other expenditure on the production of Magnesium Chloride. The dividends on share capital are not included in the cost of production, nor is the interest on debenture and other loans in so far as the sums so raised have been devoted to fixed capital expenditure.

(a) WORKS COSTS.

76. Please fill up the two Forms annexed to the questionnaire regarding Works Costs.

The following explanations may be useful :—

- (a) The Board are anxious to have as full information as possible regarding the cost of production, but they recognise the difficulty which manufacturers may feel in disclosing to the public the details of their practice and their works costs. Great stress was laid on the importance of publicity in paragraph 303 of the Fiscal Commission's Report, and the Board also have explained the views they hold in paragraph 41 of their Third Report on the Grant of Protection to the Steel Industry. It rests with the manufacturers themselves to decide what information can be given publicly, and nothing will be published which the witness desires to be treated as confidential. At the same time, the Board cannot base their recommendations merely on confidential information. The publication of the details of the works costs of each firm may not be essential because the Board may be able, by comparison of the various figures submitted, to arrive at a standard or average figure for each item. But it is very desirable that the total of the works costs should be disclosed in all cases.
- (b) In Form I the actual expenditure of the year under the various heads should be shown, whereas in Form II it is the cost per unit of output that is desired.
- (c) The years for which figures have been asked for are 1916, 1918, 1921 and 1923.
- (d) The figure given against raw materials should be the cost delivered at the Works and will include the cost of all labour employed in collection or transport. The cost of such labour, therefore, is necessarily excluded from the item ' Labour ' in the forms.
- (e) If at any stage of the process of manufacture materials are recovered and can be used again, the credits taken for such recoveries should be entered in the forms, and the manner in which such credits are taken explained.

- (f) In the Forms Power and Fuel are shown as one item, but it is preferable (if possible) that they should be shown separately.

77. Was the works cost increased in any of the years for which figures have been given owing to the fact that the Works were working at less than their full capacity? If so, which were the items principally affected? To what extent would they probably have been reduced if a full output had been obtained?

78. Do you regard the works cost of the last year for which figures have been given as abnormally high for any other reason? If possible, furnish an estimate of the works cost for some future year on the assumption that—

- (a) conditions are normal,
- (b) an output is obtained equivalent to the full capacity of the plant.

79. Have you adopted a system of cost accounting? If so, will you place before the Board, for examination and return, your cost sheets for the last complete year for which they have been prepared?

80. Are you in a position to furnish the Board with information as to the works costs of Magnesium Chloride in any competing country for any year since the war?

(b) OVERHEAD CHARGES.

(i) *Depreciation.*

81. What are the rates of depreciation allowed by the Income-tax authorities? Do you consider that, in calculating the cost of production of Magnesium Chloride, these rates of depreciation are suitable? If not, what rates do you suggest and why?

82. What is the sum required annually for depreciation at Income-tax rates on the total block account—

- (a) if the assets are valued at cost,
- (b) if the assets are taken at their value after deducting all depreciation written off up-to-date?

The depreciation should be shown separately for:—

- Buildings.
- Plant and machinery in continuous operation.
- Other plant and machinery.
- Other assets.

If you consider that rates other than the Income-tax rates should be adopted, please calculate the sums required annually for depreciation at these rates also.

83. Taking the figures given by you in answer to question 67 as the present-day cost of the buildings and machinery required for a Works having the same output as your present Works, calculate the sum required annually for depreciation at Income-tax rates and at

the rates, you consider should be adopted if you think the Income-tax rates are unsuitable.

84. Taking the total amount of depreciation to be written off according to the various methods given in questions 82 and 83, what is the incidence per ton of finished Magnesium Chloride according to the output equivalent to the full capacity of the plant?

(ii) *Working Capital.*

85. What is the working capital which the Company requires according to the output equivalent to its full capacity?

86. Is the Company able to provide all the working capital it requires from share and debenture capital, or is it necessary to borrow additional capital for this purpose?

87. If additional working capital has to be borrowed, what is the amount borrowed and the rate of interest payable?

88. Compare the working capital with the cost of one month's output (works cost only, excluding overhead charges).

89. What is the average value of the stocks of finished goods held by the Company? What period normally elapses between production and payment?

90. Does the Company find it necessary to hold large stocks of coal or raw materials? If so, the average value of the stocks held should be stated.

(iii) *Agents' Commission and Head Office expenses.*

91. Has the Company a Head office other than the office of the local management? Is it under the control of a firm of Managing Agents?

92. If the answer to question 91 is in the affirmative, please state:—

(i) the annual amount of the Head office expenses;

(ii) the Agents' commission.

93. How is the amount of the Agents' commission determined?

94. What is the cost of:—

(i) Head office expenses

(ii) Agents' commission

per ton of your production according to the output equivalent to the full capacity of the plant?

X.—MANUFACTURER'S PROFITS.

95. What rate of dividend do you consider to be a fair return on Ordinary and Deferred shares?

96. If your Company contemplated the establishment of a new Works, or the purchase of new machinery and other equipment for the existing Works—whether by way of extension or replacement—what rates of interest do you consider it would be necessary to offer on (a) Preference shares, and (b) Debentures in order to attract

capital, assuming that the profits made in the industry showed a substantial margin after providing the interest on the existing shares or debentures?

97. If it were decided to issue Ordinary shares, what do you consider would be the minimum probable return which would be likely to attract investors?

98. What is the incidence per ton of Magnesium Chloride of:—

- (a) the fair return on the Ordinary and Deferred shares as given in answer to question 95;
- (b) the full dividends on the paid up Preference shares;
- (c) the full interest on the debentures, in so far as the proceeds of the debentures have been devoted to fixed capital expenditure and not used as working capital?

N.B.—The figure should be given on the output equivalent to the full capacity of the plant.

XI.—CLAIM FOR PROTECTION.

99. In paragraph 97 of their Report, the Fiscal Commission laid down three conditions which in ordinary cases ought to be satisfied by industries claiming protection. Do you consider that those conditions are satisfied in the case of the Magnesium Chloride industry? And in particular:—

- A. Do you claim that the industry possesses natural advantages, such as an abundant supply of raw materials, cheap power, a sufficient supply of labour or a large home market?
- B. Do you claim that, without the help of protection, the industry is not likely to develop at all, or is not likely to develop so rapidly as is desirable in the interests of the country?
- C. Do you claim that the industry will eventually be able to face world competition without protection?

These conditions have been approved by the Government of India and by the Legislative Assembly, and it is therefore of great importance to ascertain whether they are satisfied. If you consider that your industry fulfills these conditions, the reasons for your opinion should be fully explained.

100. Do you claim that your industry satisfies either or both of the conditions mentioned in paragraph 98 of the Fiscal Commission's Report, *viz.*—

- (a) That the industry is one in which the advantages of large scale production can be achieved, and that increasing output would mean increasing economy of production?
- (b) That it is probable that in course of time the whole needs of the country could be supplied by the home production?

101. Do you consider that your industry is of importance on national grounds and therefore deserves protection apart from economic considerations?

102. Do you consider that there are any features of the industry which make it peculiarly suitable to Indian economic conditions?

103. What special measures (if any) do you suggest to safeguard your industry against underselling by reason of:—

- (a) depreciated exchanges;
- (b) subsidized freights;
- (c) any cause other than a reduction in the foreign cost?

104. What is the amount of protection the industry receives at present owing to:—

- (a) the existing Customs duties,
- (b) transport charges between the country of production and the port of entry, *i.e.*, freight, insurance, trade charges and landing charges?

105. What is the amount of the protection which you consider necessary?

N.B.—The reasons for proposing the particular rate recommended should be explained.

106. Do you not think that consumers of Magnesium Chloride will object to protection being granted to your industry on the ground that it will raise their cost of production and also entail a sacrifice on the final consumers?



FORM I.

Statement showing the total expenditure incurred on the production of Magnesium Chloride during certain years.

(See question 76.)

	1916.	1918.	1921.	1923.
(1) Raw materials				
(2) Works labour				
(3) Power and fuel				
(4) Ordinary current repairs and maintenance of buildings, plant and machinery.				
(5) General services, supervision and local office charges.				
(6) Miscellaneous, e.g., rent, municipal taxes, insurance, etc.				
(7) Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure.				
Total				
Total production of Magnesium Chloride for the year.				

FORM II.

Statement showing the works cost per ton of Magnesium Chloride.

(See question 76.)

	1916.	1918.	1921.	1923.
(1) Raw materials				
(2) Works labour				
(3) Power and fuel				
(4) Ordinary current repairs and maintenance of buildings, plant and machinery.				
(5) General services, supervision and local office charges.				
(6) Miscellaneous, <i>e.g.</i> , rent, municipal taxes, insurance, etc.				
(7) Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure.				
Total				
Credit for Materials recovered (if any)				
Nett total				
Total production of Magnesium Chloride for the year.				

Witness No. 1.

THE PIONEER MAGNESIA WORKS, BOMBAY.

A.—WRITTEN.

Statement I.—Copy of letter from the Pioneer Magnesia Works, dated 12th October, 1923, to the Government of India, Department of Commerce.

We have the honour to forward herewith our statement of the reasons why protection should be extended to this Industry, for submission to the Tariff Board which is now sitting.

We may add that the Director of Industries as well as the Bombay Salt Department have been connected with this Industry ever since its inception and we have reason to believe that they will be only too pleased to support our case, being directly concerned and interested in our well-being as will be noticed from copy of our Draft Agreement with Government and also a letter received from the Deputy Commissioner of Salt & Excise N. D. in this connection dated Ahmedabad 13th September 1923.

Begging the favor of a line in reply at convenience.

Enclosure 1.

Memorandum regarding Magnesium Chloride Industry for the Tariff Board.

Statement of reasons why protection should be extended to this Industry.

Magnesium Chloride is one of five most important and necessary ingredients required for cloth sizing in textile Mills. All warp yarn before being taken to the loom shed generally requires to be passed through a size mixture in order to keep the thread pliable and soft and to enable it to stand the wear and tear better. For this purpose very light size is used, but in cases where coarse cloth is woven or it is desired to give more weight, as much as 100 to 125 per cent. size is often added.

What is
Magnesium
Chloride.

2. The principal sizing substances most in vogue are :—

- (a) Adhesive or starchy materials like wheat flour, maize starch, or farina.
- (b) Weight-giving products like China Clay, French Chalk, etc.
- (c) Fatty or softening ingredients like oils-beef and mutton tallow, glycerine, soap, etc.
- (d) Zinc chloride to prevent mildew or fungus growths.
- (e) Deliquescent agents like Magnesium or Calcium Chloride or even Common Salt in some cases, to keep the thread moist. But magnesium chloride being hygroscopic in character and possessing also weight giving property, is by far the most suitable and desirable sizing medium hitherto known.

3. The use of Magnesium Chloride in India varies according to the texture of the cloth woven, and the dryness or humidity in the atmosphere, also to a

Use.

certain extent depending upon the other component parts of the size mixture used and the idiosyncrasy of the Weaving Master.

Probable
consumption.

Roughly speaking the consumption varies from about 5 tons per 100 looms per annum for Mills at Ahmedabad and in other parts of India, to about half that quantity in Bombay, and taking the total No. of looms at 1,25,000 the approximate annual average consumption in India may be set down at from 3,500 to 4,000 tons at the outside, counting at the rate of about 3 tons per 100 looms per annum.

History.

4. Before the Great European War, Magnesium Chloride used to be a monopoly of Germany and the average import price ruled in the vicinity of about Rs. 3/8 per cwt. c.i.f. Bombay.

5. There was a customs duty of $2\frac{1}{2}$ per cent. *ad valorem* payable by merchants and other importers, exemption being granted to Mills directly importing for their own *bonâ fide* use.

According to present tariffs however both Mills, and merchants have to pay a uniform 15 per cent. *ad valorem* duty.

German
production.

6. At Stassfurt in Germany there are large valuable deposits of a mineral called *Carnallite*, which is a double-chloride of Potassium and Magnesium with traces of Bromides and Iodides. Magnesium Chloride forms by far the greater portion of this carnallite and *must be eliminated* before recovering the potassium bromides and iodides, and thus it could naturally be exported from Germany as a bye-product at *very little cost*. Besides it was usually shipped from there as *bottom cargo* at extremely low freight rates, whereas the indigenous product has to bear considerable freight charges and cannot claim any sea-board to facilitate its transport.

Great Britain as a rule does not produce or export much Magnesium Chloride. It rather imports all its own requirements from Germany, not only for *bonâ fide* consumption but for also commercial re-export to India and other places. Besides textiles, Great Britain largely uses the Magnesium Chloride for making Magnesia cements and manufacture of flooring tiles, etc., though in India this is a negligible quantity, and only textile Mills are so far known to be the principal users.

Origin of
the Magnesium
Chloride
Industry in
India.

7. As soon as the War started and German supplies were cut off, prices of Magnesium Chloride like every other commodity began to soar high, and a stimulus was thereby given to the investigation of local resources.

Attention was drawn in the year 1915 to the almost unlimited supply of *Bitterns* (which is a term applied to the residual mother liquor left in the salt pans after the sodium chloride or common salt is formed from brine at the bottom) at Kharaghoda, where the Pritchard Salt works of the Bombay Government are situated, and where about 40 lacs of Bengal Maunds of what is known as the Badagra cube-salt is annually produced departmentally.

8. Kharaghoda forms part of the Desert of Cutch being 60 miles away from Ahmedabad and only 18 miles by rail from the important junction station of Viramgam, on the Bombay, Baroda and Central India Railway. The Gulf of Cutch about 60 miles further is supposed to be the source of all the brine water at Kharaghoda with which the sandy soil is saturated and this brine contains besides the sodium chloride a few other salts and is particularly rich in Magnesium Chloride which is usually found in the ratio of 1 to 12, in the Kharaghoda Agurs. In the ordinary working season from October to May, Bitterns are let off twice. On a very rough estimate, this supply would run to about 25,000 tons annually which could be easily turned into say 10 to 12,000 tons of Magnesium Chloride every year of the *best quality*, which is enough to supply the whole of India 3 or 4 times over. This is, not taking into account the adjoining salt works at Kuda—which are only 10 miles away from Kharaghoda as the crow flies—belonging to the Dhrangadra State, where also excellent Magnesium Chloride is produced in sufficient quantity in full competition with the Kharaghoda product.

India has thus vast untapped resources of this material and could very well afford to be thoroughly independent of foreign supplies and even to export any amount under favourable conditions. Besides it can give rise to many a new allied industry if proper support be given and means taken to protect it.

9. The Bombay Government first invited tenders in the year 1915 for the right to remove the Bitterns from the Kharaghoda Salt Works, with the result that one Mr. P. V. Mehd, M.A., B.Sc. (Assistant Professor of Chemistry at St. Xavier's College in Bombay) succeeded in obtaining the Contract from the Commissioner of Salt, Opium and Excise on Royalty payment of 8 annas per cwt. This was only for a few months, when fresh tenders were again invited for the year 1916, and each succeeding year thereafter, and a private Company formed in the name of the Pioneer Magnesia Works of Ahmedabad, consisting of the Hon'ble Sardar Rustom Jhangir, Vakil (Mill Owner and Merchant of Ahmedabad) and Messrs. B. S. Lalkaka, B.A., and P. V. Mehd, M.A., B.Sc.,

Beginning of
the Pioneer
Magnesia
Works at
Kharaghoda.

New Agreement. Substituting Government participation in Company's profit in place of fixed Royalty as hitherto.

was started to run the contract. The Royalty payable was fixed at Re. 1-8 per cwt., that being the highest rate offered to Government. This contract was renewable from year to year and from the 2nd year, the Company established its Factory at Kharaghoda and has been working there since, under the supervision of the Government Salt Department, and in close collaboration with the Director of Industries, Bombay, through whom the present new agreement with the Secretary of State for India has been negotiated. According to this Agreement, Government have now become direct participators under certain conditions in the Company's nett profits in place of the hitherto fixed Royalty of Re. 1-8 a cwt., upon all the removals from Kharaghoda.

10. The Company have at their works, a trained chemist and an Engineer, besides other requisite staff they have also their offices at Ahmedabad and Bombay, both principal centres of the Mill Industry. Besides their representative goes round every year for canvassing orders from the rest of India, and to push the Company's sales. They have also a small Laboratory for conducting experiments and their chemist was sent for further study and investigation and to carry on certain Research work under Drs. Sudborough and Watson at the Indian Institute of Science at Bangalore.

Company's
Resources.

11. The Pioneer Magnesia Works occupy an area of about 20,000 square yards leased from the Kharaghoda Salt authorities, on which are placed their Factories, Railway Siding, Office Bungalows, Work-men's chawls, and other Store rooms, besides a separate shed for making drums for packing their material. An up to date Motor Rail wagon with a 6-ton tank-attachment plies in the Working Season for bringing the Bitterns from the Agurs to the Works and large masonry reservoirs holding a thousand tons or more at a time made of stone-paving throughout, are constructed for storing their raw material. A good idea could be formed from the illustrations given in the small monograph on the Kharaghoda Industry published by the Company of which some spare copies are herein enclosed for the information of the members of the Tariff Board.

12. They have also a good financial backing and always have a large supply of several thousand drums ready to meet any demand.

13. Their product has been analysed more than once, side by side with various samples taken out of German drums, under the supervision of Professor A. J. Turner, M.A., B.Sc., F.I.C., Government Chemist attached to the Industries' Department, and is in no way inferior in strength or quality to the best imported article. (Vide comparative analysis given—Schedule A.)

Magnesium
Chloride
(Comparative
analysis).

In 1920, small trial consignments were also sent to certain firms in England. These were well received and showed every prospect of some firm offers being made, as could be seen from telegrams and letters exchanged on the Company's file, and but for the difficulty of shipping and heavy freight charges prevailing then, this might have resulted increasing a good export demand for the Company's goods.

Exports.

14. The Company hopes when times improve, to again bid for foreign export.

15. Magnesium Chloride could also be used in tile-manufacture and for road watering as also for making Magnesia Cements, but these uses require to be considerably developed in India.

16. The Bombay Municipality did make some experiments for using this as a road-watering material of which the result is not fully known, and a certain tile Factory in Madras have also bought some wagons from the Company for their use. There has also been some demand though very little from Rice Mills for use as a grinding agent.

Bye-products.

17. Epsom Salt and Glauber Salts could be produced from the Kharaghoda Bitterns, but on account of the very small proportion of these salts in the original mother liquor and owing to the use of sulphuric acid and other more elaborate process, the cost becomes prohibitive and it cannot pay as a commercial proposition against like products manufactured in Bombay and elsewhere.

There is a slight trace of Bromine also in the Kharaghoda Bitterns and in 1918 Government on the advice of their technical expert made the Company put up a special experiment plant for the purpose of recovering the Bromine and manufacturing the Magnesium Chloride in a special way. The idea was dropped however, because Bromine which was considered a valuable adjunct for explosives in war time, was no longer needed so acutely after hostilities had ceased, and further the Company's own process of manufacture was acknowledged to be far more effective and economical in the end than the one which the Company were forced to experiment with at a cost of several thousand rupees which resulted in dead loss to them when the plant was subsequently scrapped.

This may, however, serve to show that in times of difficulty or when necessity arises in the event of a national emergency the Company's works may prove of invaluable aid and not be altogether devoid of interest from the Government point of view.

Refined salt.

18. The Pioneer Magnesia Works situated on the outskirts of the big salt works of Government at Kharaghoda have a particular facility for refining and turning out a more purified quality of sodium chloride from the ordinary Badagra Cube salt which is so much mixed with dirt and other impurities. They have therefore established a small plant for making Refined salt (also Table salt) which comes up in all respects to the imported Liverpool salt and could easily compete with the best Cheshire or Cerebos Salt if so desired. On the recommendation of the Director of Industries, numerous Military Dairies all over India have actually used the Company's product in place of the English Butter salt which they were importing.

19. It may be interesting to note here that Calcutta alone imports annually something like 4 to 5 lac tons, i.e., about a crore of Bengal maunds of this refined salt in bulk from such places like Liverpool, Hamburg, Barcelona, Aden, and so forth, against which the Indian refined salt has to compete also. Of all places Bengal alone is used to this foreign salt to any large extent, and although the Company has been making serious efforts to popularise its use in places close by like Ahmedabad and Bombay, hitherto there has not been much encouragement nor demand in bulk except for the Calcutta market.

20. The sea freight on foreign salt from thousands of miles away, works out roughly at only 4 annas a maund (i.e., less than Rs. 7 or Rs. 8 a ton) whereas from Kharaghoda to Calcutta even at concession rates, the Company has to bear as much as Rs. 1-12 a maund or nearly Rs. 45 to Rs. 50 a ton, other conditions being equal. Unless therefore things are radically changed, it is hopeless or impossible for the Indian Industry to stand on its own legs or to compete against the foreign rivalry. The same excise duty of Rs. 2-8 a maund prevails equally for both the indigenous as well as the imported salt.

21. This subject also requires careful and sympathetic consideration and provided suitable protection could be had, there is immense possibility for the local Industry to flourish, and take its proper place side by side with the similar imported product and in the case of this Company this would also materially tend to lower their cost of the Magnesium Chloride production, inasmuch as the same staff could supervise and attend to both the plants running side by side.

Comparative statement of Magnesium Chloride imported into Bombay and the quantity produced at Kharaghoda and sold by the Pioneer Magnesia Works.

FOREIGN IMPORTS.				KHARAGHODA FIGURES.			
(From official figures published in the Bombay Gazette Trade Returns.)							
Years ending 31st March.	Tons (about).	Value.	Average import price per cwt. exclusive of Duty and other charges.	Production.		Sales Tons about.	Gross realisations.
				Calendar year January to December.	Tons.		
		Rs.	Rs. A. P.				Rs.
1914-15 . . .	2,705	3,00,570	5 8 9	1914 . . .	Not started.		
1915-16 . . .	3,563	9,33,075	13 15 0	1915 . . .	Dit to.		
1916-17 . . .	1,067	2,81,355	13 3 0	1916 . . .	966	838	1,45,873
1917-18 . . .	1,185	2,90,955	12 5 0	1917 . . .	1,145	1,181	2,90,742
1918-19 . . .	Not available.			1918 . . .	1,845	1,920	4,27,816
1919-20 . . .	848	2,27,997	13 6 6	1919 . . .	1,822	1,648	4,01,206
1920-21 . . .	2,929	8,39,210	14 4 0	1920 . . .	1,477	1,173	2,55,825
1921-22 . . .	2,330	4,49,680	9 10 0	1921 . . .	851	1,099	2,03,255
1922-23 . . .	2,716	2,93,594	5 6 6	1922 . . .	1,353	735	1,03,897
TOTAL . . .	17,343	36,15,836					
1923-24.				1923.			
April . . .	858	55,345	3 3 6	January to June . . .	Nil	198	20,205
May . . .	623	37,737	3 0 0				
June . . .	635	35,407	2 12 6				
TOTAL . . .	2,116	1,26,489		TOTAL . . .	9,459	8,792	17,67,819

N.B.—The following points have a particular bearing on the present question and must be carefully noted.

22. To the Kharaghoda figures must be added the rival figures of Production and Sale from the adjoining Salt works of Kuda in the Dhrangadhra territory. These are not exact but may be roughly put down at nothing less than about 500 tons per annum. These are likely to be exceeded considerably in future, because from next year the State has been granted permission and has made arrangements to manufacture several lakh maunds of Sodium Chloride in their own agurs in place of only 30,000 maunds to which they were restricted according to subsisting Treaty Rights with the Government of India.

23. It may further be noted that according to authentic official records quoted above, the proportion of Imports is almost 95 per cent. German

and 5 per cent. only from the rest of the World including Great Britain, as will be seen from the following detailed summary showing the quantities arrived in Bombay Port alone from various sources during the past 1½ years from January 1922 up to June 1923.

Sources of Import from	Tons (about).	Cwts.	Import value without Customs Duty and other sundry charges.	Average approximate price per cwt. without duty and other charges.	
				Rs. A. P.	
This is more or less the same origin, i.e., Germany—					
United Kingdom.	113	2,263	28,417	12 9 0	For period from 1st January to 31st December 1922.
Germany	2,717	54,350	2,87,902	5 4 9	
Netherlands	74	1,402	9,354	6 4 3	
Belgium	34	678	2,695	5 7 3	
TOTAL	2,938	58,783	3,29,368	5 9 6	
United Kingdom	83	1,662	13,197	8 0 0	For period from 1st January to 30th June 1923.
Germany	2,696	53,916	1,66,265	3 1 3	
Other countries	15	298	902	3 0 0	
TOTAL	2,794	55,876	1,80,364	3 3 6	

24. The disparity in ruling prices of stuff imported from United Kingdom as compared with Germany is very glaring and surprising, and shows that whereas Germany could send out at Rs. 5-4 in 1922 and at Rs. 3 in 1923 per cwt. Great Britain is nearly 2½ times dearer and cannot export at anything less than Rs. 8 in 1922 and Rs. 12-9 per cwt. in 1923.

Also Germany has a virtual monopoly of the Imports and has sent out 2,717 tons out of 2,938 tons in 1922, i.e., 92½ per cent. of the trade and 2,696 tons out of 2,794 tons in 6 months alone of 1923 or 96 per cent. of the total imports.

25. That the present competition is sufficiently killing and ruinous to the local Indian industry may be judged from the separately given figures of actual costs of production incurred by the Pioneer Magnesia Works at Kharaghoda for the past 7 years of their existence. (*Vide* Schedule B.) This would show that whereas the Kharaghoda costs have remained more or less constant and could not possibly be reduced to any appreciable extent unless and until the other important necessary expenses like packing material or Railway freights and handling charges, Royalty, etc., radically changed, the German prices have been constantly going down and down with their tumbling exchange and even now it cannot be said that the bottom is touched.

26. Whereas the imported stuff sells on c.i.f. terms or in some cases at godown rates in Bombay, the Pioneer Magnesia Works deliver it free at Mills and accept Mill weights as against invoice weights in the other case. That means a material addition to the Company's costs. Besides the Company's packing is in sound galvanised drums, which means more money to them though the drum when empty is not without value to the purchaser. The prejudice, however, in favour of Germany is so strong that even though their packing is so inferior and it is a common experience to see drums half full if not totally empty sometimes, the first low cost is

28. The German stuff moreover has an important advantage over the local industry in this way, that owing to Bombay being the first port of entry and the sea freights being necessarily lower than the Railway charges however cheap, they can afford to under-sell the indigenous product to some extent, whereas the Company could have no control over the Railway freights from Kharaghoda to Bombay and have to bear other heavy incidental and double handling charges.

It is small wonder, therefore, that in spite of the Company offering their goods at much below their intrinsic costs, not a single drum could be sold in Bombay for the past one year almost in face of the German distress goods knocking about and put on the market by nervous dealers. The Company's Factory is therefore per force shut down since last year, and though the expenses have been cut down to a minimum, certain unavoidable charges go on accumulating and only add to their burden of carrying over large stocks from which to make sales whenever a demand is visible. The present low prices of *between Re. 1 and Rs. 2 per cwt.* prevailing in Bombay are not enough to cover even the Railway freight and handling charges incurred by the Pioneer Magnesia Works on their Kharaghoda stuff, and so far as could be judged from the past nine months' working the Company is not even covering the expenses and stands to lose a substantial portion of its capital before the year is out.

29. 1. *Natural advantages.*

(2). There is an abundance of raw material at Kharaghoda which annually goes to waste in such large quantities. This is exclusive of the immense rich supplies lying dormant at the adjoining Salt Works of Dhrangadhra and other untapped resources all over Kathiawar and in other parts of India. The following calculation roughly shows the estimated yield of Magnesium Chloride from Bitterns from the Pritchard Salt Works of Government at Kharaghoda alone:—

[illegible]

This means at least about 10 to 12,000 tons of best Magnesium Chloride or three times the total requirements of India year after year.

Dhrangadhra if fully worked could yield much the same quantity, so there is absolutely no lack of raw material so far as the industry is concerned.

30. (b) So long as salt remains an integral part of vital human consumption and the Kharaghoda Agurs are not finally dismantled or abandoned, Magnesium Chloride will ever count as an important subsidiary bye-product and will continue to play its part provided, of course, the Mills do not also cease using it as a sizing ingredient as at present. Of this there is no immediate danger.

31. (c) *Transport*.—The Kharaghoda agurs are served with a net work of about 40 miles of Railway line throughout the Salt works, which no doubt helps the Company materially in bringing their raw Bitterns to the Factory, as promptly and economically as possible.

Further owing to the importance of the salt industry itself there is any amount of Railway facility for transporting the manufactured product direct from the Company's Railway siding to any part of India with the minimum of delay.

32. (d) *Labour*.—This is also cheap and plentiful at Kharaghoda and of a sort peculiarly adapted to this class of handling and work, for which the ordinary labourer would not do so easily. Magnesium Chloride being of a corrosive nature and the conditions of work at Kharaghoda rather peculiar and of a somewhat strenuous nature, an ordinary workman would soon run away and not be able to withstand the extremes of heat and cold and the blinding summer sandstorms. The "Agaria"—as the Agur labourer is called—who is bred and born in these parts is well adapted for this class of work and does it very efficiently.

33. (e) *Company's resources*.—The Company has the good fortune of possessing a wealthy Mill-owner and financier in Sardar Rustom J., Vakil of Ahmedabad, so there is no dearth of capital to meet any future developments as may be deemed necessary or expedient.

They have a well established office in Bombay working in conjunction with an influential Firm of good standing and reputation (Messrs. H. M. Mehta & Co. of 123, Esplanade Road, Fort, Bombay) with another Head office at Ahmedabad to look after the sales; besides they have a well trained chemist and an Engineer at the Works, and the Company's representative also visits different Mills all over India to canvas sales.

34. (f) The Company's product is well known and used by almost every Mill in India. The packing is in sound galvanised drums. Their quality also is quite up to the mark and the analysis compares very favourably with the best imported article, and given suitable conditions it is possible to build up a successful export trade with Great Britain and other foreign countries to the lasting advantage of this country. The Company were also awarded a Diploma of merit at the Madras Industrial Exhibition of 1918.

35. (g) The general cost of production is fairly low and but for this unhealthy and artificial competition which enables Germany to dump her goods into India at ridiculously cheap rates, there is every chance for the indigenous product to grow and to stand on its own legs, so as to meet any world competition.

Protection, however, is absolutely necessary under present abnormal conditions, notably on account of the fabulous depreciation and collapse of the Mark in Germany which to a certain extent acts like a bounty in favour of the exporting country, and is the means of overflowing of cheap goods, in allied countries, causing so much unemployment in Great Britain and elsewhere.

36. Even in pre-war times German Magnesium Chloride used to be landed in Bombay at about Rs. 3-8 per cwt. f.o.r. Bombay, whereas just now the prices rule between Re. 1 and Rs. 2 per cwt. owing to a variety of causes, viz.:—

Firstly.—The Germans have long since ceased quoting in Marks. All their transactions are now conducted in foreign currency and with every appreciable fall in the value of the Mark there has been a material reduction in sterling quotations as judged from the tabular statements already given. Even the latest quotations are in the vicinity of £1-10 to £2 per ton which would mean roughly less than Rs. 2 per cwt. f.o.r. Bombay including the 15 per cent. duty and all other incidental charges.

This is possibly due to the fact that Germany having established gold credits in foreign countries, is in a position to sell so cheap despite the fact that the cost of production in her own country has materially risen, instead of being lowered.

37. *Secondly*.—Germany being a debtor country is naturally anxious to turn all her merchantable ware into ready foreign money regardless of real value, and this added to special export facilities granted in her own country, possibly enables her to throw it away so cheap, which others cannot afford to do.

38. *Thirdly*.—All export trade is run by big groups or syndicates who dabble in marks and arrange credits in a way which materially cheapens their cost of purchase.

39. *Fourthly*.—Magnesium Chloride is a waste product of very little value in Germany itself and since it requires to be removed from there at any cost, after recovery of other very valuable salts or minerals, they could afford to pack it off to foreigners, irrespective of price.

40. *Fifthly*.—Magnesium Chloride used to be brought as bottom cargo before the war and even now there are extremely low freight rates for this class of goods which are brought down from Germany in their own steamers.

41. *Sixthly*.—Germany is out to capture her lost trade and to re-establish herself in foreign lands. She can therefore afford to offer this bait of cheap prices to kill the infant indigenous industries in other countries which when once done, would no doubt enable her to demand her own terms and sell at any fancy prices afterwards.

42. *Seventhly*.—During the last 2 years many an Indian Merchant who had never dreamt of handling or even seen this article, was tempted by low offers to put large indent orders so much so that where ten tons would suffice, 100 tons were ordered, and the market was overstocked. Owing to the corrosive nature, bad packing, long distances and transshipments at various places, German drums have been found to be leaked out from top to bottom with the result that the merchant here is badly hit and is very anxious to part with his goods at any price lest he might not realise even that much by waiting longer. Moreover, it requires big godawn space, which means further expense. There are, therefore, anxious sellers in Bombay at the moment at even Re. 1-8 a cwt. or lower for any lot purchases. This argument is only used to show the unfortunate position into which the Indian industry has been reduced through lack of protection.

43. *Eighthly*.—There have been prolonged Mill strikes at Ahmedabad. Besides in consequence of dull trade generally, leading to curtailed mill production, the demand for Magnesium Chloride has also considerably fallen, which acts like a load, on this industry. Meantime fresh shipments continue to arrive against pending contracts, thus making it more and more difficult for the nascent industry to hold up against fast accumulating stocks. They are per force obliged, therefore, to shut down the Factory in view of such adverse factors, at heavy loss. Protection is not wanted permanently but, as a temporary measure only, so long as this abnormal state of things lasts. As it is, it is even too late and should have been thought of 2 years ago. For the mischief is done and it will take a considerable time to get things moving again in face of the immense quantities that are already imported and lying unconsumed in the country. If any relief is to be granted, urgent steps are most necessary and advisable.

44. *Ninthly*.—Apart from any indirect advantages like those of Government Royalty, distribution of wages and payment of Railway charges, income-tax, etc., as could be gleaned from the following table, which are lost to the country, Government have by their new agreement a direct interest in the continuance and well-being of this industry owing to participation in half the Company's profits year after year. Some consideration is, therefore, due to the Company as this factor cannot altogether be ignored or lost sight of.

Table of Royalty—Labour charges and Railway freight—Payments annually made by the Company.

Years.	Government Royalty.	Wages and other charges.	Railway freight.	TOTAL.
	Rs.	Rs. (about)	Rs.	Rs.
1916	31,847	30,000	10,690	72,537
1917	38,096	20,000	10,025	68,121
1918	55,741	48,000	13,591	1,17,332
1919	47,296	45,000	10,721	1,03,017
1920	33,557	30,000	7,589	71,146
1921	38,772	26,000	12,500	72,272
1922	14,874	24,000	5,118	43,992
TOTAL	2,53,182	2,23,000	70,234	5,48,417 <i>plus</i> 68,429

for income-tax paid during the above period which would mean a potential gain to the country at the rate of about Rs. 90,000 per annum.

45. *Tenthly.*—Judging from the Company's production during the past seven years of nearly 9,500 tons, there has been an average annual output of 1,300 to 1,400 tons which is derived only from 4 months' working on their present resources. This means that for eight months of the year the Factory lies idle and is not working. Provided there is enough demand, even on their present plant—which could be considerably increased at very little cost—the Pioneer Magnesia Works can turn out at Kharaghoda at least 4,000 tons of Magnesium Chloride per annum, which is equal to the whole of the demand from Indian Mills and this would necessarily lower their cost of production, and add proportionately to the distribution under all the three heads as shown above, which otherwise would be a total economic loss to India if this promising nascent industry were to be extinct, and hounded out by such ruthless German tactics.

46. *Eleventhly.*—To the argument that protection may tend to make the price unnecessarily dear to the consumer, the following answer could be given.

Conditions, of course, vary with each individual Mill and hence it is difficult to give exact calculations. However, the following will give a good idea.

On the basis of 20s. to 24s. warp \times 30s. to 36s. weft of yarn used in a Mill and taking an average of even 100 per cent. size per lb. of yarn (which is altogether a very high percentage to take for all India) it appears that less than half a lb. of size is used on every lb. of cloth woven. The average approximate cost per lb. of size mixing in a Mill at the present day would roughly amount to 2½ annas of which the proportion of Magnesium Chloride is only about 1/24th of 30 pies=1 to 1½ pies per lb. of size used.

In other words, the total cost of Magnesium Chloride per lb. of cloth woven cannot be more than half a pie at the very highest computation which is altogether negligible and the Mill Owners' argument of increase in costs, would fall to the ground in view of the other important negative advantages accruing to the country by the continuance of the Industry in India.

National defence.

Twelfthly.—Though not directly contributing to national defence, this Industry may in times of emergency be easily adapted for collection and recovery of bromine and such like substances which are highly valued for explosives and the Factory could also be made a nucleus of any new or cognate industries which it may be possible to run to advantage or made to serve for demonstration purposes at Kharaghoda.

47. *Thirteenthly.*—The best way of protecting the Industry would be by means of an anti-dumping duty on the Foreign Magnesium Chloride arriving at port, so as to make it impossible for it to undersell the local product at anything below the actual cost of production as shewn above. For this we have a good precedent in Australia where anti-dumping legislation actually is in force now and a Tariff Board is working to protect the local industries against ruthless foreign competition, as is now contemplated in India.

To decide what amount of actual Duty should be effective against the foreign article, it will be necessary to consider the local minimum costs and the average approximate import value during the past, and supposing the Company's lowest cost of production comes to about Rs. 3-2 per cwt. f.o.r. Kharaghoda (without Royalty) *plus* handling and railway freight and godown charges in Bombay amounting to Re. 1-8 extra it will mean Rs. 4-10 the least Bombay. To this must be added a reasonable margin of profit for the Company of say 12½ per cent. which would bring the minimum sale price to about Rs. 5-4 per cwt. in Bombay, and to bridge this gulf a duty of about 200 per cent. or a little more or less may even be necessary so long as German import prices remain at this present low level as judged from the Customs returns above quoted.

48. *Fourteenthly.*—Protection is not sought for the Pioneer Magnesia Works alone but in favour of the Magnesium Chloride industry in India as a whole, and there being other rich fields of supply also, there is no fear of creating a monopoly for any particular Company. Rather it is bound to benefit the whole country and do immense good in the end both to the producer as well as the consumer.

Enclosure 2.

SCHEDULE A

[Comparative analysis of different samples of German as well as Kharaghoda Magnesium Chloride.]

Bombay, January 1923.

No.	Description of sample.	Colour.	Alkalinity in C. (S. of N. Na. OH per 100 gas.	Magnesium Sulphate Mg SO ₄ .	Sodium Chloride Na Cl.	Iron Oxide Fe ₂ O ₃ .	Calcium Oxide Ca O.	Magnesium Chloride Mg Cl ₂ .	Water (by diff.).	REMARKS.
1	German 12 cwt. Drum Top	Sky blue	1.20	0.25	1.62	0.001	..	45.82	52.21	All the German samples gave a clear solution, on the addition of H. Cl. The Kharaghoda samples on similar treatment did not give any residue but the solution was cloudy owing to very very fine suspension. In samples 3, 4, 5, 7, 8, 9, 10 and 11 the amount of iron oxide was less than 0.001 per cent.
2	German 12 cwt. Drum bottom	Do.	1.20	0.25	1.74	0.001	..	46.06	51.06	
3	German Drum Middle	Good white	0.72	0.12	0.08	..	..	45.82	52.98
4	German Drum Bottom	Do.	0.90	0.13	0.08	..	..	47.05	52.74
5	German Drum Top	White -light bluish tint.	1.75	0.30	0.10	..	..	46.65	52.95
6	German Drum Bottom	Strong yellow	1.75	0.84	0.16	0.007	..	46.20	52.80	
7	Kharaghoda Drum Top	Grey	0.46	0.77	0.83	..	..	46.24	52.61
8	Kharaghoda Drum Bottom	Do.	2.0	3.70	0.40	..	..	44.65	50.95
9	Kharaghoda Bottom	Grey but deeper than in 7 and 8.	1.74	3.39	0.60	..	..	45.19	50.81
10	Kharaghoda Top	Do.	0.87	2.05	0.85	..	..	45.80	51.30
11	German powdered	Dull granular	Acid in reaction acidity 0.3 per 100 C. Cs. of N. H ₂ SO ₄ fus.	NH	NH	..	..	46.74	53.26

Enclosure 3.

SCHEDULE B.

Detailed Statement showing actual annual expenditure incurred by the Pioneer Magnesia Works on Magnesium Chloride manufactured at Kharaghoda according to their Books of Account from 1916 to 1922.

Comparative statement of working costs from 1916 onwards.

Serial No.	Item.	1916.	1917.	1918.	1919.	1920.	1921.	1922.
1	Royalty	Rs. 31,847	Rs. 38,096	Rs. 55,741	Rs. 47,296	Rs. 35,557	Rs. 33,772	Rs. 14,874
2	Bitterns extraction and storage	3,775	6,083	19,845	16,914	9,694	3,673	5,618
3	Factory charges	20,277	6,632	16,736	18,561	11,348	10,875	9,309
4	Motor Rail Wagon	..	..	..	..	..	..	2,661
5	Fuel	4,067	14,229	39,830	23,949	17,691	15,103	12,938
6	Drums and Packing	10,896	20,440	48,588	38,298	28,606	35,913	16,605
7	Railway charges	10,690	10,025	13,591	10,721	7,589	12,500	5,118
8	Transport and handling charges	3,157	5,915	7,286	8,536	6,039	7,485	3,138
9	Sundries	848	2,720	2,596	5,290	2,084	2,294	1,500
10	Rents and Taxes	1,498	278	425	1,561	2,289	2,213	1,463
11	Travelling	726	580	1,258	936	611	1,245	1,191
12	Establishments, allowances, etc.	6,681	9,535	17,915	5,910	5,275	12,141	6,377
13	Bad debts	280	1,606	2,310	239	59	1,144	..
14	Insurance charges	..	..	..	..	..	..	360
15	Interest	3,124	2,807	2,385	2,951	3,437	5,514	8,046
16	Selling Expenses (Commissions, discounts, shortages, etc.)	20,349	19,579	38,806	31,370	16,468	20,864	9,893
17	Depreciation	5,957	14,268	15,000	22,843	24,933	24,000	11,844
18	Income Tax	1,625	2,645	5,572	23,566	16,114	18,907	..
	TOTAL	1,13,107	1,53,228	2,90,888	2,64,499	1,88,344	2,07,646	1,10,845

Statement of actual working costs of Magnesium Chloride per cwt. f.o.r. Kharaghoda based on annual production, at the Factory from 1916 to 1922, as seen from the Pioneer Magnesia Works' Books of Account. These are exclusive of Railway freights, handling charges, selling commissions, depreciation and income-tax payments which would all have to be counted extra.

Years.	Sales.	Productions.	Total annual working costs as above f. o. r. Kharaghoda.	Average cost of production without other charges shown above per cwt. f. o. r. Kharaghoda.
	cwts.	cwts.	Rs.	Rs. A. P.
1916	16,762	19,327	71,329	3 11 0
1917	23,610	22,896	1,00,796	4 6 6
1918	38,403	36,903	2,10,633	5 11 3
1919	32,950	36,434	1,67,463	4 9 6
1920	23,468	29,542	1,17,201	4 0 0
1921	21,979	17,034	1,23,890	7 4 3
1922	14,698	27,059	80,942	3 0 0
TOTAL .	171,870	189,195	8,72,254	4 9 9

N.B.—(1) The reason why the expense in 1921 is so high is because in that year the production was exceptionally low.

Rs. A. P.

(2) The average cost per cwt. of Rs. 4-9-9 f.o.r. Kharaghoda as shown above can be roughly explained as under	
Factory and fuel cost (about)	1 2 0
Government Royalty	1 8 0
Drums and packing	1 2 0
Interest, establishment and all other sundry charges excepting those mentioned on top	0 13 9
	<hr/> 4 9 9 per cwt.

(3) Up to the year 1921 Royalty remained fixed at Re. 1-8 a cwt. irrespective of whether the price realised was higher or lower.

It will be noticed that the Royalty to Government has up to now worked out on an average to nearly $\frac{1}{3}$ rd of the cost of production, which is rather prohibitive.

Enclosure 4.

No. 88-5.

From—H. T. SORLEY, Esq., M.A., I.C.S., Deputy Commissioner of
Salt and Excise, Northern Division, Ahmedabad,
To—The General Manager, Pioneer Magnesia Works, Ahmedabad.

13th September 1923.

I am glad to receive the draft copy of the case prepared by you for submission before the Tariff Board. I perused the case with interest and certainly consider it worth putting before the Tariff Board for consideration.

I am submitting the papers to the Commissioner for consideration remarking that the industry in question deserves some protection against foreign competition.

Enclosure 5.

Copy of Draft Agreement regarding Magnesium Chloride at Kharaghoda.

THIS INDENTURE made the day of One thousand nine hundred and between the Secretary of State for India in Council (hereinafter referred to as "the Secretary of State" which expression shall include his successors in office and assigns unless such interpretation shall be excluded by or repugnant to the context) of the one part and Sardar Khan Bahadur Rustom Jehangir, Vakil, on behalf and in the name of the firm carrying on business as the Pioneer Magnesia Works, consisting of the following partners namely, Sardar Khan Bahadur Rustom Jehangir, Vakil, Behramji Sorabji Lalkaka, and Parjanyaarai Vaikunthrai Mehd, all of Ahmedabad (hereinafter referred to as "the said firm" which expression shall include any future partner or partners of the said firm and the survivors or survivor of them their heirs executors administrators and assigns unless such interpretation shall be excluded by or be repugnant to the context) of the other part.

2. WITNESSETH that in consideration of the royalties covenants and conditions hereinafter reserved and contained and on the part of the said firm to be respectively paid performed and observed the Secretary of State doth hereby permit the said firm through themselves or their agents or servants.

FULL SOLE AND EXCLUSIVE LICENSE AND AUTHORITY TO UTILIZE for the term of 30 years commencing from the day of 19 all bitters remaining, after the extraction of salt from the brine, in the salt pans at the Pritchard Salt Works situated at Kharaghoda in the Taluka of the Ahmedabad district for the purpose of manufacturing Magnesium Chloride and Magnesium Sulphate from the said bitters:

TOGETHER WITH FULL LIBERTY AND LICENSE to have access to the said salt works for the purpose of removing such bitters.

3. AND the said firm hereby agrees as follows:—

- (a) "The said Royalty will be payable after allowing to the Firm as its own exclusive property ten per cent. of the actual total expenditure incurred without counting the interest or the income-tax charges for the period. After deducting this item from the total gross profits of the year, the surplus, if any,

shall be divided into two equal parts and given to the Government as Royalty and to the Firm as their own respective shares;

- (b) to keep accounts, in such form as may be prescribed by the Secretary of State, of the quantity of Magnesium Chloride and Magnesium Sulphate so manufactured and exported and to allow inspection of the said account at all reasonable times by such officer as the Secretary of State may authorise in this behalf;
 - (c) to obtain the previous approval of the Secretary of State to all proposed expenditure on buildings, plant, machinery, bungalows, quarters and works to be erected or constructed in connection with the said manufacture;
 - (d) to utilise daily not less than four hundred and eighty gallons of bitterns for the purpose of the said manufacture;
 - (e) to supply the Secretary of State during the said term of thirty years, on payment of a reasonable price to be determined from time to time by agreement between the parties, with such quantities of the mother liquor and of the said liquor at any subsequent stage in the process of manufacture as he may require;
 - (f) not to dismantle or remove any building, plant, machinery, bungalow, quarter, work or material necessary for the purpose of or incidental to the said manufacture, save as provided in this agreement.
4. AND the Secretary of State hereby agrees to permit the said firm:
- (a) to manufacture from the said bitterns, subject to terms and conditions to be agreed on by the parties, bromine, bromide or other bye-products, unless the said manufacture of bye-product be at any time undertaken by a Government department;
 - (b) to use, subject to the control of the Salt Department, such roads, ways and railway sidings on the said Pritchard Salt Works as may be necessary for the purpose of the said manufacture and for the removal of bitterns and manufactured products.

5. AND the Secretary of State shall lease to the said firm land which in the opinion of the Secretary of State is reasonably required for the purposes of the said manufacture and shall, subject to the provisions of clause 3 (c) of this agreement, permit the said firm to erect on the said land, plant, machinery, buildings, bungalows, quarters and other works necessary for the purpose of or incidental to the said manufacture: such leases and permission shall be subject to such restrictions or conditions relating to the use of land, including the payment of any rates or taxes, as may be applicable under any enactment or rule for the time being in force to the land in the vicinity of the said salt works.

6. The Secretary of State shall, on giving six months' prior notice in writing of such his intention, to be delivered at or sent by registered post to the office of the said firm at Kharaghoda, have the right at any time to cancel this indenture and to take over the business of the said firm under the terms of this indenture and to enter upon and take possession of all land in possession of the said firm for the purposes of the said business and to take possession of all buildings, plant, machinery, works and material thereon:

AND the said firm shall surrender to the Secretary of State all their right, title and interest in such land, buildings, plant, machinery, bungalows, quarters, works and materials and shall quietly give possession of the same:

AND the Secretary of State shall in such event reimburse to the said firm the market value, to be determined by agreement between the parties hereto, at the date of the resumption of the right title and interest of the said firm in all such buildings, plant, machinery, works, bungalows and quarters of which the expenditure has been approved under clause 3 (c) of this agreement and in the land of which possession has been taken under the terms of this condition, and in the materials:

PROVIDED that no compensation shall be payable in the event of such entry and taking possession for buildings, plant, machinery and works of which the expenditure has not been approved under the provisions of clause 3 (c) of this agreement or for land leased to the said firm by Government or on which the said firm has a right of entry by permission of Government, or for bittens removed from the salt works:

PROVIDED FURTHER that in the event of disagreement between the parties hereto as to the said market value, the said value shall be determined by an equal number of arbitrators appointed by the parties hereto:

PROVIDED FURTHER that during the first ten years of the terms hereby granted the Secretary of State shall not have the right, save on the ground of gross negligence, grave mismanagement and incapacity on the part of the said firm, to take over the said business as aforesaid except for the purpose of carrying on the said business under the direction, control and management of a department of Government.

7. AND THE SAID FIRM shall be at liberty to terminate this agreement at any time before the expiry of the said term of thirty years by giving three months prior notice in writing to the Secretary of State such notice to be delivered at, or sent by registered post to the office of the Collector of Ahmedabad. In the event of the agreement being so terminated the Secretary of State, on giving notice to the said firm, before the expiry of the aforesaid period of 3 months, in the manner provided in clause 6 of this agreement, shall be at liberty to take over the business of the said firm in the manner and on the conditions specified in clause 6 of this agreement:

PROVIDED that if the Secretary of State shall not exercise his option to take over the business, the said firm shall not be entitled to any compensation but shall be at liberty to dismantle and remove, after the expiry of the notice period and within six months from the date of such termination of the agreement, all buildings, plant, machinery, bungalows, quarters and works erected or constructed by them in connection with the said manufacture.

8. AND it is hereby further agreed that in case the said firm shall not fulfil or perform all and every of the conditions set forth in this indenture or shall commit a breach of any of them, it shall be lawful for the Secretary of State, after giving six months' previous notice in writing to the said firm in the manner provided in clause 6 of this agreement to cancel this agreement free of all claims of any persons whatsoever:

AND in such event the Secretary of State shall be at liberty, on giving notice in writing in the manner provided in clause 6 of this agreement of such his intention before the expiry of the aforesaid period of six months, to take over the business of the said firm in the manner and on the conditions specified in clause 6 of this agreement:

PROVIDED THAT IF THE Secretary of State shall not exercise his option to take over the business of the said firm, the said firm shall be at liberty to dismantle and remove any buildings, plant, machinery, bungalows, quarters or works erected or constructed by them in connection with the said manufacture, after the expiry of the aforesaid period of six months and within six months from the date of cancellation of this agreement but shall not be entitled to any compensation for such cancellation.

IN WITNESS WHEREOF
 Secretary to Government, hath by order of the Honourable the Governor Esq.,
 of Bombay in Council set his hand and the seal of his office for and on
 behalf of the Secretary of State for India in Council and the said firm
 hath hereunto set their hands the day and year first above written.

Signed and sealed by
 Secretary to Government, for and on behalf of the Esq.,
 Secretary of State for India in Council in the }
 presence of



- 1.
- 2.

Signed by Sardar Khan Bahadur Rustom
 Jehangir, Vakil, Behramji Sorabji Lalkaka and
 Parjanyarai Baikunthrai Mehd in the presence of

- 1.
- 2.

Enclosure 6.

**Magnesium Chloride Manufacture and the Pioneer
 Magnesia Works by B. S. LALKAKA, B.A.,
 General Manager and Partner of the
 Pioneer Magnesia Works.**

Bitterns.

"Bitterns" is a term applied to the residual mother liquor left in the salt pans after sodium chloride (common salt) is formed. It is, therefore, a by-product in salt manufacture, being usually found in the ratio of 1 to 12 at Kharaghoda where the manufacture of salt on a large scale is carried on under the control of the Government of Bombay. The mode of manufacture here differs considerably from the method in vogue at other places in the Presidency, where ordinary sea water is used. At Kharaghoda the brine is drawn from wells. Kharaghoda forms part of the Runn of Cutch, and is eighteen miles distant from the important junction station of Viramgam, with which it is connected by a broad gauge branch line of the Bombay, Baroda and Central India Railway.

The Pritchard Salt Works, as they are known, were first opened about 35 years ago and now produce annually on an average about 40 lakhs of Bengal maunds of what is called "Badagra" salt. The whole of the surrounding area is now a sandy desert, probably submerged in bygone ages.

Salt manufacture begins soon after the rains are over, when the brine with which the sandy soil is saturated is raised and filled into salt pans to a depth of nine inches to a foot and allowed to evaporate for a period of from six to eight weeks. Thin incrustations of salt are formed at the bottom and the floating bitterns, or mother liquor, is then drained off and conducted into separate channels known as "farans." Fresh brine is then super-added by slow degrees until actual salt cubes are formed which are ready for

extraction and storage by April. The salt works, which are divided into a number of "sidings," are served by a net-work of railway lines and are a regular hive of industry giving employment to several thousand labourers during the summer months. Seven engines, each drawing a load of 40 to 50 wagons laden with salt, ply from sunrise to sunset removing the salt from the pans to closed and open Government stores near the railway station where it is stocked. The rainfall, though averaging only about 20 inches annually, is sufficient to flood the low-lying *agars*, or pans, in the monsoon. During the summer months the sun is very strong and dust storms are frequent, but the cold weather is healthy and bracing.

The bitterns, which are drawn off to the extent of several thousand tons annually during the season of salt manufacture, are exceedingly rich in magnesia salts. They are now used for the manufacture of magnesium chloride, the main use of which is as a sizing agent required by textile mills all the world over.

Composition of bitterns.

The bitterns left in the pans after the manufacture of common salt from sea water contain magnesia and other salts, but the following analyses show the greater concentration of both common salt and magnesium chloride in the brines of the Runn of Cutch. It should be mentioned that the brines vary considerably in composition, even in adjacent wells, and that the figures in the following table are the averages for five samples analysed at the Government Laboratory, London, on behalf of the Director of Industries, Bombay. The figures for sea water are based on the well known analyses of Dittmar.

	Kharaghoda brines.	Sea water.
	Per cent.	Per cent.
Sodium chloride (Na Cl)	14.67	2.72
Magnesium chloride (Mg Cl ₂)	4.63	0.33
Magnesium sulphate (Mg SO ₄)	0.48	0.22
Calcium Sulphate (Ca SO ₄)	0.44	0.13
Potassium chloride (K Cl.)	0.41	0.07
Calcium carbonate (Ca CO ₃)	0.01	0.01
Magnesium bromide (Mg Br ₂)	0.07	0.01

Bitterns contain all the salts enumerated above except the calcium sulphate, but no efforts are usually made to utilize them. At the end of each season they are washed away by the rain.

Magnesium chloride, magnesium sulphate (epsom salts), potassium chloride and bromine are all substances of commercial importance, and the quantity which is annually wasted in India has been estimated by Watson and Mackenzie Wallis to be as follows:—

Amount of salts wasted annually in Indian bitterns.

	Tons.
Magnesium chloride (MgCl ₂ ·6H ₂ O)	193,000
Magnesium sulphate or epsom salts (MgSO ₄ ·7H ₂ O)	127,000
Potassium chloride (KCl.)	20,000
Bromine (Br.)	1,800

Magnesium chloride.

Before the war magnesium chloride was practically a German monopoly, and Indian supplies were almost wholly imported from Germany at the very low price of Rs. 3 to 4 per cwt. At Stassfurt in Germany there are large deposits of the mineral known as carnallite, which is a double chloride of potassium and magnesium with traces of bromides and iodides. Magnesium chloride forms the greater portion of this carnallite and has to be eliminated before recovery of potassium bromides and iodides, so that it could be exported as a by-product at little cost, while it was generally shipped as bottom cargo at low freight rates.

Magnesium chloride is one of the five most important ingredients used in size mixing. All grey yarn before passing to the loom-shed requires to be sized to an extent varying with the nature of the cloth to be woven and the prevailing climatic conditions, but in order to keep the thread pliable and soft and to enable it to withstand the strain involved in the process of weaving a certain amount of size is practically always needed.

The following are the most important sizing substances in use:—

- (a) Adhesive or starchy ingredients, like wheat flour, maize starch, or farina.
- (b) Weight-giving products, like china clay and French chalk.
- (c) Fatty or softening substances, like oils, beef and mutton tallow, glycerine, soap, etc.
- (d) Zinc chloride, to prevent mildew or fungus growths, and
- (e) Deliquescent agents, like magnesium or calcium chloride for keeping the thread soft and pliable. Magnesium chloride, being hygroscopic in character, is peculiarly suitable as a sizing material.

At Ahmedabad, where the climate is for the most part very dry and hot, much heavily sized cloth is woven, and for this as much as 100 to 130 per cent. of size is required, entailing a much larger consumption of magnesium chloride than at Bombay, where the climate is humid and the cloth woven finer than that made at Ahmedabad. The consumption varies from about 5 tons per 100 looms per annum in Ahmedabad to about half that quantity in the Bombay mills.

Taking the total number of looms in India to be about 120,000, and estimating 3½ tons per 100 looms as the average mean consumption, the annual requirements of the country may be roughly calculated at about 4,500 tons, which were almost entirely supplied from Germany before the war. As soon as hostilities commenced and supplies were cut off, a stimulus was given to the investigation of local resources and attention was drawn to the almost unlimited supply of bitterns at Kharaghoda going to waste from year to year with the result that experiments were made to test the possibility of turning out a good substitute for the German article.

Manufacture of magnesium chloride in India.

Tenders were invited by the Government of Bombay for the right to remove the bitterns from the salt works with a view to by-product manufacture, and Mr. P. V. Mehd, M.A., B.Sc., who was then working as an Assistant Professor of Chemistry at St. Xavier's College, obtained the first contract from Government for extracting and removing the bitterns for a few months in the year 1915 on payment of 8 annas per cwt. as royalty. Fresh tenders were subsequently invited by the Commissioner of Salt and Excise for a one year's contract, and a company under the name of the Pioneer Magnesia Works was then formed with the Hon'ble Sardar Rustom Jehangir Vakil, Mill owner and Merchant of Ahmedabad, Mr. P. V. Mehd and the writer, as partners. The royalty payable to Government was fixed at Re. 1-8-0 a cwt.

As the first contracts were given only for a year at a time, it was not possible at the outset to work on a large or permanent scale. During the

first year the raw material was railed from Kharaghoda to Ahmedabad, a distance of about 60 miles, where it was prepared in a rough way by the Company for the use of the mills. In the second year, 1916, the factory was removed to Kharaghoda where it has been working ever since.

The Company's premises occupy an area of about 20,000 square yards leased from Government on which are situated their factory buildings, workmen's chawls, drum-making plant and store houses, as well as two well-built bungalows for the use of the proprietors and the supervising staff. Reservoirs, cemented and stone-paved throughout, have been constructed with a capacity of a thousand tons of bitters. A stock of several thousand drums of the finished product is always maintained and kept ready to meet any demand. The plant now in operation was designed by Mr. T. S. Dawson, late Principal of the Victoria Jubilee Technical Institute of Bombay, and has given very good results.

As the result of negotiations carried on through the Director of Industries, the Company have now been granted a long lease and, in lieu of the existing fixed rate, royalty is to be payable in future on a sliding scale adjusted according to the fluctuations of the market.

Operations at Kharaghoda.

The first stage of operations at Kharaghoda is the collection of the bitters at the *agars* and their transport to the reservoirs adjoining the Company's factory by means of a motor rail wagon with a special tank attachment. As the bitters are allowed to concentrate further in the reservoirs their collection is carried out considerably in advance of their utilization at the factory. Even at a density of 48°T the bitters still contain some common salt, and the manufacturing operations are designed to eliminate this and other salts, of which the most important is magnesium sulphate, as well as suspended clay and other heavy impurities. The latter settle down in the reservoirs where the common salt is also removed. The bitters, now very rich in magnesium chloride, are then pumped to a series of copper pans placed over furnaces, where the magnesium sulphate is so altered in composition that its separation is easily effected in a subsidiary set of copper pans to which the bitters, after their treatment in the furnace pans, are transferred. The magnesium chloride is finally recovered as a hot liquid which is poured into strong galvanized drums where it solidifies and is ready for export from the factory.

Quality of Indian magnesium chloride.

Analysis by Mr. A. J. Turner, Principal of the Victoria Jubilee Technical Institute, Bombay, shows that the Kharaghoda product is quite as good as the imported article. A favourable opinion has also been recorded by Drs. Sudborough and Watson of the Indian Institute of Science, Bangalore. Samples taken by the Director of Industries, Bombay, were analysed at his request at the Government Laboratory, London, where they were pronounced to be "good commercial magnesium chloride (fully hydrated)."

The magnesium chloride of Kharaghoda has been found to compare well with the German article in practical use as well as in chemical analysis. The only handicap against it is its appearance. The imported article has a better colour and, though it makes no difference in actual use, this naturally secures its preference by many consumers. The origin of the greyish colour in the Kharaghoda production is not known and constitutes a problem of considerable scientific and technical interest. Several explanations have been offered but no method of removing it has yet been devised. Even when a perfectly pure white article has been obtained by crystallization, the grey colour usually reappears on fusion, and as it is the fused and not the crystallized chemical which is required for trade purposes, the Kharaghoda production reaches the consumer with a greyish tinge. The Company is, however, fully alive to the importance of removing this purely superficial defect and is working, in collaboration with the Bombay Department of

Industries and with the assistance of the Indian Institute of Science, to solve the problem.

Last year the Company sent a trial consignment of a few tons to England with the idea of building up an export trade. The product was approved and several offers were received, but, owing to the recent slump in prices in the United Kingdom, it has become impossible in the meantime to make headway.

Output.

The Company's works are in charge of a trained chemist and a qualified engineer, and their labour force during the working season numbers about 100. They have their own offices at Ahmedabad and Bombay, and in the latter city Messrs. H. M. Mehta & Co. have been appointed selling agents. The business side has been carefully organized and representatives travel all over India. The Company claims that hitherto no serious complaint either of defective quality or shortage of supply has been received from its customers.

The resources of Kharaghoda in magnesium chloride are immense and the Company's works could easily supply the whole of the Indian market. During the war the Company rescued the cotton mill industry in Western India from a serious difficulty, as will be seen from the figures in the statement below. Up to date it has paid over Rs. 2½ lakhs to Government in royalties and, as good prices were obtained till last year, it has also contributed large sums in income tax to Government revenues. Within the last year or so Germany has dumped large quantities of magnesium chloride in India where the selling price has been much below that in England. Despite these depressing trade conditions the Pioneer Magnesia Works are still able to compete in price, as well as in quality, with the foreign manufacturer, as the following table shows.

Imports and Indian production of magnesium chloride.

NOTE.—Import figures for the years preceeding 1914-15 are not available.

Years.	IMPORTS.		SALES OF KHARA- GHODA PRODUC- TION.*
	Tons.	Value.	
		Rs.	Tons.
1914-15	2,705	3,00,570	...
1915-16	3,563	9,33,075	..
1916-17	1,067†	2,81,355	838
1917-18	1,185†	2,90,955	1,181
1918-19	Not available.		1,970
1919-20	848	2,27,397	1,647
1920-21	2,929	8,39,210	1,171
1921-22	2,330	4,49,680	1,099
1922, April to July, four months	1,510	18,29,746	600‡

* Sales for calendar years 1916 to 1921.

† Excluding imports into Calcutta and Karachi.

‡ Sales for seven months, January to July 1922.

There is also a considerable production of magnesium chloride at Dhrangadra.

Future prospects.

Apart from its use as a sizing agent not many uses are known for magnesium chloride. In the past there has been a small demand for it from rice mills in Burma and Madras for use in grinding operations. Efforts have also been made from time to time to popularize the use of magnesia cements. Its employment on road surfaces in Bombay city has been suggested. All other requirements are, however, comparatively small and the annual outturn at Stassfurt in Germany, the chief centre of production, was formerly only about 25,000 tons.

Other by-products might, however, be manufactured at Kharaghoda, such as epsom salts, Glauber's salt, and a substance known as "*chirodi*" from which plaster of paris can be obtained. The Company has made attempts to produce these, as well as zinc chloride, and has investigated the extraction of bromides, but none of these efforts have so far been commercially successful.

Epsom salts might be extracted from the bitterns before the magnesium chloride or from the sludge which remains after the recovery of the chloride from the bitterns by the process already described. This sludge contains about 35 per cent. of magnesium sulphate. Magnesium sulphate, which is used in rather larger quantities than the chloride, is also chiefly used in finishing textiles.

On the analysis of a large range of samples of brines, bitterns, salts and sludges supplied by the Director of Industries, Bombay, to the Government Laboratory, London, the Department of Scientific and Industrial Research in England recommended further experiments on a "semi-large" scale for the recovery of other salts, including potassium salts and bromides, but the Government of Bombay, in view of the fact that the royalties on magnesium chloride go to imperial and not to provincial revenues, have not considered further expenditure on their part justified and have referred the matter to the Government of India.

Table salt.

The Company have recently erected an up-to-date plant for preparing refined table salt from the ordinary "Badagra" salt manufactured at Kharaghoda. This plant was designed and brought into successful operation by Mr. A. J. Turner, Principal of the Victoria Jubilee Technical Institute, Bombay, who is one of the technical advisers of the provincial Department of Industries. The refined salt equals in quality and appearance the best imported table salt and it is hoped to obtain a large market for it, especially in Calcutta. Till recently railway rates have been prohibitive, but these have now been adjusted to the same scale as those for unrefined salt.

B. S. LALKAKA.

Statement II.—Copy of letter from the Pioneer Magnesia Works, dated 17th November 1923, to the Government of India, Department of Commerce.

We have the honour to acknowledge receipt of your letter No. 6072, dated Simla, 19th October, stating that the Tariff Board being at present fully occupied with inquiries into the steel and derivative industries, no further questions can be referred to them for examination until further progress be made in the investigation now in hand.

We beg to thank you for saying that our application has been noted and that if the Government of India decide to remit it to the Board, we may be duly informed.

The reply is extremely disheartening, in that it means shelving of the question "Sine die," and with your permission we would respectfully invite your attention to the following important points which will show how urgent it is to bring the question before the Board for any examination they may deem proper.

(1) Without entering into the merits of the case, it may be pointed out that the main reason why our industry cannot compete with the foreign article, is because of the extraordinary cheap rates at which the German product (almost 97 per cent. of the total imports) is brought into India, owing to a variety of causes and the existence of very heavy low priced stocks in India, not to mention in other neutral countries and at German Ports.

(2) There has been some evidence lately, so far, though very little—of the previous German stocks in Bombay getting scarce, and though the prices also have stiffened by a few annas per cwt. here and there, what is most suspicious is the possibility of further large orders going from our mills and merchants with consequent risk of dumping, which sooner or later is bound to shut us out for months on end, without any prospect of our young industry receiving, and immediate steps cannot be too strongly urged in the protection of our own nascent industry.

(3) The Director of Industries who takes a particular interest in our own case—as we are working according to our agreement with the Secretary of State, on a profit sharing basis with the Government under certain conditions and under that officer's general supervision—has been good enough to make a strong representation on our behalf to the Bombay Government requesting that if possible, our case instead of being indefinitely postponed may be heard before the Board now and in view of the Tariff Board actually sitting in Bombay at the present moment and going into the question of the Chemical Industries—as they did yesterday in case of the Eastern Chemical Works and the Dharamsi Morarji Chemical Works of Bombay, when this very question of Magnesium Chloride had been discussed also—would it be too much to hope, Sir, that the Government of India may be pleased to revise their decision and consider our case also fit for urgent examination whilst the Board are in Bombay and before it gets too late. For after all it is a question of life and death to the industry as circumstances stand at present, and we fear that a fine opportunity will be lost by further delay to save it from inanition.

We also beg to enclose a copy of our letter of the 15th instant to the Director of Industries pertaining to this question.

Copy forwarded to the Director of Industries, Bombay, for information.

Enclosure 1.

123, Esplanade Road,
Bombay, 15th November 1923.

H. F. KNIGHT, Esq.,
Acting Director of Industries, Bombay.

Re Tariff Board.

SIR,

Referring to our conversation and subsequent letter of the 30th ultimo, may we respectfully inquire whether you have been able to address the Bombay Government in the matter of allowing our representation to go before the Tariff Board, which unfortunately has been barred for the present, owing to the Board being too much pre occupied with the far more important inquiries into the steel and the derivative industries, as per Government of India's letter No. 6072 of October last, shown to you.

The latest newspaper reports even go to show that the import position is far from improving yet. A cutting from the "Advocate of India's Market Report" of 11th instant is enclosed herein which says "Magnesium Chloride's Home quotation is £3 per ton" (which is equal to about Rs. 2-12-0 per cwt. Bombay godown delivery) and large orders are booked at that rate.

This is enough to scare us still more inasmuch as that unless immediate steps are taken to bar new entries, the days of our indigenous and young industry are numbered, and it is only a matter of days and months when we will be perhaps shut out for ever.

Under the circumstances, we can only appeal to you, Sir, to protect our interests, if at all you think them worth preserving, and we fully trust that now that the Tariff Board is actually meeting for the first time in Bombay to-morrow, every effort will be made to have our case investigated on its own merits and some urgent necessary steps taken before it be too late or we are wiped out.

Re Royalty agreement with Government and last year's accounts.

As it is a long, long time since we heard in the matter we shall esteem it a greater favour, if you would kindly oblige us by stating when it is going to be finally settled so that we may shape our course accordingly. Awaiting the favour of a line in reply at early convenience.

Statement III.—Copy of letter from the Pioneer Magnesia Works, dated the 28th April 1924, to the Government of India in the Commerce Department.

In continuation of our registered letter, dated 12th October last, forwarding our application for protection to be extended to this industry, we have the honour to send herewith a further supplementary statement for submission before the Tariff Board.

We shall be glad to give oral evidence also as required in support of our case whenever called upon to do so by the Board.

APPENDIX I (TO STATEMENT III).

Figures of Foreign Imports and Kharaghoda Sales during 1923-24 as under. Foreign Imports from Official Customs Returns, 1923-24.

Months.	Tons.	Import Value Rupees.	Average Import price per cwt. (exclusive of duty and other charges).			Kharaghoda January to 1923 tons about	Sales December Gross Realisation about
			Rs.	A.	P.		Rs.
April	858	55,345	3	3	6	45	4,709
May	623	37,737	3	0	0	55	8,985
June	635	35,403	2	12	6	30	3,068
July	115	8,326	3	10	0	4	306
August	40	3,346	4	2	0	4	335
September	25	807	1	13	0	32	2,801
October	67	4,649	3	7	6	15	1,337
November.	53	2,556	2	6	9	18	1,530
December	88	5,874	3	5	9	15	1,348
January	436	22,754	9	9		13	1,051
February	466	24,670	2	10	2	40	3,333
March	Not available yet					28	2,450
TOTAL (for 11 months)	3,406	2,01,561	2	15	3	328	31,253
			per cwt. average.				

NOTE.—(a) Out of 3,406 tons, Germany exported 3,246 tons at an average of Rs. 2-12-3 per cwt. c.i.f. Bombay, the rest being all from the United Kingdom at an approximate cost of Rs. 6-15-3 per cwt.

(b) Owing to large stocks and no sales to speak of during 1923, the Pioneer Magnesia Works had to shut down their works and consequently there has been no new production either during the past year or up to now.

(c) Out of 329 tons sold from Kharaghoda in 1923 the share of Bombay is practically nil, the whole quantity being mostly sold in Ahmedabad.

(d) The following statement of sales received from the Company's Selling Agents, Messrs. H. M. Mehta & Co., of 123, Esplanade Road, Fort, Bombay,

shows how poor the response from Bombay has been in spite of the considerable sacrifices in rates suffered by the Pioneer Magnesia Works.

1923-1924.

Date.	Party's name.	Cwts. qrs. lbs.	Rates for Mill delivery.	Amount.
			Rs. A. P. per cwt.	Rs. A. P.
20th December 1923	Sitaram Mills	7 1 0	3 8 0	25 6 0
23rd December 1923	Planet Mills	26 1 9	3 8 0	92 2 0
24th December 1923	Kalyan Mull Mills	13 3 0	3 8 0	48 2 0
29th December 1923	Bombay United Mills	26 3 26	3 12 0	101 3 0
15th January 1924	Planet Mills	26 3 0	3 8 0	93 10 0
25th January 1924	Bombay United Mills	18 2 18	3 8 0	47 13 0
30th January 1924	Dr. E. S. Mody	20 1 3	3 8 0	71 3 0
12th February 1924	Hatim Mills	34 0 14	3 8 0	164 7 0
29th February 1924	Mohsin Mills	6 3 25	3 8 0	24 6 6
8th March 1924	Kalyan Mull Mills	26 2 10	3 8 0	93 1 0
17th March 1924	Ditto	27 2 6	3 8 0	96 7 0
27th March 1924	Victoria Mills	14 0 0	3 8 0	49 0 0
27th March 1924	Bombay United Mills	23 0 0	3 10 0	101 8 0
28th March 1924	Planet Mills	12 3 27	3 8 0	45 7 6
	TOTAL	282 0 26	Less selling com. 5 %	1,053 12 0 52 11 0 1,001 1 0
Less Railway freights and other handling charges in Bombay up to Godown and for Mills delivery.				368 11 0
				632 6 0

— Rs. 2-3-10 per cwt. net realisation in Bombay.

APPENDIX II.

Table of Royalty, Labour Charges and Railway Freights paid during the calendar year 1923 are:—

1923.

Royalty.	Wages and other charges.	Railway freights and handling charges.	TOTAL.
Rs.	Rs.	Rs.	Rs.
Nil	3,917	2,136	6,053

APPENDIX III.

Statement of detailed expenditure incurred by the Company in 1923 as per audited Balance Sheet for the year ending 31st December 1923.

Items.	Rs.	
1. Government Royalty (on profit sharing basis according to new agreement) . . .	...
2. Bitterns Extraction and Storage	}	
3. Factory charges		
4. Motor Rail wagon		3,917
5. Fuel		
6. Drums and Packing		7,365
7. Railway and other handling charges . . .		2,136
8. Establishment and Sundry charges . . .		4,120
9. Rents and taxes		715
10. Travelling charges		380
11. Allowances		3,000
12. Bombay office charges		893
13. Insurances . . . . .		...
14. Selling Commission, discounts, weight allowances, etc.		1,915
15. Interest charges		8,190
16. Depreciation on Buildings, Plant and Machinery according to Government Schedule .	11,844	Gross
		Revenue
TOTAL	44,580	Rs. 31,253

NOTE.--There has been no new production for nearly two years besides the sales were also extremely poor during 1923, being only about 329 tons=6,580 cwt. on which the total expenditure incurred, viz., Rs. 44,580 becomes extremely heavy, giving an average cost of nearly Rs. 6-12-6 per cwt.

There is small wonder, therefore, that the Company has during the past year suffered a heavy trading loss of nearly Rs. 27,000 and the prospects for the current year 1924 are also very gloomy and are expected to result in further serious loss, in spite of the fact that most of the Company's establishment at Kharaghoda as well as in Bombay and Ahmedabad has for the time being been broken up, and the chemist as well as other supervision staff dismissed to cut down all overhead charges to a minimum.

APPENDIX IV.

The stocks of foreign Magnesium chloride in Bombay yet seem to be plentiful and the rates sufficiently low being somewhere in the vicinity of Rs. 3-8 to Rs. 3-12 per cwt. f.o.r. Bombay, and the present German quotations appear to be between £3-10 and £4 per ton (c.i.f. Bombay).

The Pioneer Magnesia Works have under these circumstances recently submitted an application to the Bombay, Baroda and Central India Railway Company to reduce their carrying rates to Bombay if possible in order to enable the Company to re-enter the Bombay Market. But it must be noted that without adequate protection in the shape of a Dumping Duty on the foreign stuff entering here, the position of the local industry is very precarious.

Besides whatever steps are to be taken should be taken soon, otherwise the chances of recovery for the indigenous industry would be getting more and more remote and taking advantage of this position, Germany will be able to dump her products more and more on this country.

Statement IV.—Replies to questionnaire received from The Pioneer Magnesia Works, Ahmedabad, dated 16th June 1924.

We have the honour to acknowledge receipt of your office No. 414, dated the 23rd May 1924, together with enclosures.

Our reply to the questionnaire, with five spare copies, is sent with this letter, and we have also enclosed herewith five copies of a journal "Magnesium Chloride Manufacture and the Pioneer Magnesia Works" which contains some interesting information in connection with the manufacture of Magnesium Chloride at our Works.

We have tried to place before you in as clear a manner as possible, the details of the whole case in our two previous representations and also in our reply to the questionnaire. If, however, you consider it desirable that our representative should be examined before the Board in Simla we shall be only too pleased to abide by your wishes on hearing from you even by a telegram.

THE MAGNESIUM CHLORIDE INDUSTRY.

INTRODUCTORY.

Q. 1. Our firm, The Pioneer Magnesia Works, was established in the year 1915 A.D. It is an unregistered private firm.

Q. 2. The whole capital of our firm is held by Indians. There are three Indians in the superior management of the firm.

Q. 3. Our firm manufactures Magnesium Chloride as well as Refined Salt.

Q. 4. Our Works commenced to manufacture Magnesium Chloride in 1915 A.D. in the month of September.

Q. 5. The full capacity of our Works as at present equipped for the manufacture of Magnesium Chloride is 4,000 tons per year.

Q. 6. Output of Magnesium Chloride in our Works has been as under:—

Year.	Output in Tons.
1915 . . . . .	...
1916	966
1917	1,145
1918	1,845
1919	1,822
1920	1,477
1921	851
1922	1,353
1923	Nil

Q. 7. Our Works are situated on the Kharaghoda Government Pritchard Salt Works in the Viramgam District.

(a) Our Works are situated advantageously in respect of the vicinity of the areas from which principal raw material, viz., Bitterns is drawn.

(b) There are no coalfields or other sources of power or fuel near our Works.

(c) Our Works are advantageously situated in respect of an important market, namely, Ahmedabad, which is only 60 miles from Kharaghoda.

(d) Our Works are not very advantageously situated in respect of the abundant labour supply.

The most important factor in selecting the site of a Works for the manufacture of Magnesium Chloride is the vicinity of the source of raw material, viz., Bitterns.

Q. 8. Our Magnesium Chloride is equal in quality to the imported stuff but our Magnesium Chloride is not as white as the imported stuff. Ours being a little greyish in colour. We do not realise the same price for our Magnesium Chloride as is realised for the imported stuff because of the prejudice against Indian goods.

Q. 9. Magnesium Chloride is principally used for sizing purposes in the Textile Mills.

Q. 10. The production of Magnesium Chloride at our Works is limited to certain months of the year; the raw product being not available throughout the year. For this reason we have to store up raw materials as well as finished goods to meet the demand for the rest of the year; this increases cost of production by locking up the capital. The limited consumption of our goods owing to foreign competition would not justify working the factory throughout the year, which fact also contributes to the increase of cost of production.

II. RAW MATERIALS.

Q. 11. The raw material used in our Works is Bitterns, residual mother liquor of salt.

Q. 12. The annual requirements of the raw material, if the factory were worked to its full capacity, would be nearly ten thousand tons of the Bitterns.

Q. 13. Approximately 2½ tons of Bitterns is required to manufacture one ton of Magnesium Chloride.

Q. 14. Bitterns is drawn from Government Salt Works, situated at a distance of 2 to 5 miles.

Q. 15. Bitterns is collected by manual labour and transported to the factory by means of a rail motor wagon.

Q. 16. From 1915 to 1923 we paid a royalty at the rate of Re. 1-8-0 to the Government on the manufactured goods, but since 1923 the amount of royalty is made dependent upon the net profit made.

Q. 17. The cost per ton of the raw material, viz., Bitterns is Rs. 2-8-0 per ton as shown below in detail, exclusive of the royalty which is payable on the finished goods and not on the raw materials.

Year.	Labour.		(Transport Freight.)		Miscellaneous.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1916 . .	1	14 0	0	6 0	0	4 0
1918 . .	.....		.....		.....
1921 . .	.....		.....		.....

Q. 18. Copies of the agreement for royalty are enclosed herewith. The terms are now favourable.

Q. 19. We have not to import any raw material.

Q. 20. We have not to use any chemicals in the manufacture of Magnesium Chloride.

Q. 21. Questions of special freight rate for raw material by rail or sea does not arise in our case.

III. LABOUR.

Q. 22. No expert supervision involving the employment of foreign skilled labour is required in the process of manufacturing Magnesium Chloride.

Q. 23. No imported labour is used at present and none would be required to be used, if the factory were to work to its full capacity.

Qs. 24 and 25. These questions do not rise in our case.

Q. 26. We utilise all Indian labour in our factory.

Q. 27. The total wages bills for different years run as under :—

Year.	Amount of bill in Rupees for the labour.
1916	20,277
1918	16,736
1921	10,875
1923 . . . . .	...

Q. 28. The Indian labour force is sufficient for our works, and it is drawn from the vicinity of the Works.

Q. 29. We have found that the Indian labourer improves with training.

Q. 30. We have erected special quarters for the labourers.

IV. POWER (INCLUDING FUEL).

Q. 31. The power used in the Works is derived from steam.

Q. 32. Coal and firewood, both are employed as fuel. Firewood can be obtained in sufficient quantities for our purposes.

Q. 33. Half a ton of firewood is required for every ton of finished product (Magnesium Chloride).

Q. 34. Firewood which is the principal fuel is brought from a distance of 100 miles. Coal is obtainable at its source at Rs. 9 per ton. Firewood is obtainable at the rate of Rs. 25 per ton. The freight per ton of coal is approximately Rs. 20 and per ton of firewood is Rs. 3-12-0.

Q. 35. We do not own or control our sources of fuel.

Q. 36. We have obtained no concession for wood, which is our principal fuel.

V. MARKET.

Q. 37. There are only two factories manufacturing Magnesium Chloride. We manufacture the bulk of it and our production for various years is as under :—

Year.	Output of Magnesium Chloride in Tons.
1916	966
1917	1,145
1918	1,845
1919	1,822
1920	1,477
1921	851
1922	1,353
1923 . . . . .	...

Q. 38. The total demand for Magnesium Chloride in India is from 3,500 to 4,000 tons.

Q. 39. The increase of demand for Magnesium Chloride depends upon the increase of textile manufacture in India.

Q. 40. The principal markets for Magnesium Chloride are Ahmedabad and Bombay, the former being at a distance of 60 miles and the latter 360 miles from our Works at Kharaghoda.

Q. 41. There are no markets in India in which owing to their distance from the ports, we can more easily compete against the foreign manufacturer.

Q. 42. Export of Magnesium Chloride from India to foreign countries is not probable.

VI. FOREIGN COMPETITION.

Q. 43. Germany is the chief foreign country from which competition in the Indian markets is the keenest.

Q. 44. In Germany Magnesium Chloride is manufactured from Carnallite found in the Stassfurt deposits.

Q. 45. The manufacture of Magnesium Chloride in Germany is as a waste bye-product of valuable potassium salts, while we have to manufacture it as the chief product.

Q. 46. The process of manufacture in India and in Germany is mainly the same but in Germany the manufacturers have an advantage that they recover potassium and other salts, thus reducing the cost of manufacturing Magnesium Chloride.

Q. 47. The following are the rates exclusive of duty for the imported Magnesium Chloride:—

Year.	Rate (exclusive of duty) per cwt. in rupees.		
	Rs. A. P.		
1914-15	5	8	0
1915-16	13	15	0
1916-17	13	3	0
1917-18	12	5	0
1918-19	Not available		
1919-20	13	6	6
1921-22	9	10	0
1922-23	5	6	6

Q. 48. The above prices are quoted from Government Trade Reports.

Q. 49. Magnesium Chloride is manufactured as a waste bye-product in Germany, and it is carried as ballast on boats to Indian ports. Hence they have a big margin of profits.

Q. 50. Foreign competition is keenest in the Bombay market.

Q. 51. The exceptional low prices at which German Magnesium Chloride has entered India since war is due to the favourable exchange to Germany.

Q. 52. We are not in possession of actual figures for freight by sea for foreign Magnesium, but this commodity is usually carried on boats as ballast.

Q. 53. Bombay is the chief market, and it being a port, the imported stuff has nothing to pay by way of railway freight.

Q. 54. We have no instances to our knowledge in which Continental Magnesium Chloride has been re-exported from the United Kingdom as British manufacture.

Q. 55. The foreign manufacturers have an advantage over Indian manufacturers, as Magnesium Chloride with former is a waste bye-product of potassium salts, and is easily collected and does not require any treatment by means of any special plant or machinery.

Q. 56. Though none of the disadvantages mentioned in Question 55 can be regarded as temporary, protection of the indigenous industry for a reasonable length of time, say 10 years, under the past war normal condition should enable us to hold our own against foreign competition.

VII. EQUIPMENT.

Q. 57. Our Works are sufficiently large as an economic unit of production. The smallest economic unit of production would be 500 tons.

Q. 58. The manufacture of Magnesium Chloride does not require the use of elaborate and expensive machinery.

Q. 59. About 63 per cent. of the total capital outlay has been incurred on plant and machinery.

Q. 60. We enclose herewith a copy of the pamphlet on Magnesium Chloride and the Pioneer Magnesite Works, wherein on page 440, a brief description of the plant and process of manufacture is given.

Q. 61. Our machinery and other equipment and also the process of manufacture are sufficiently up-to-date and efficient to enable us to compete successfully against the foreign manufacture.

Q. 62. In 1916 we erected our Works at Kharaghoda and later new special flues for burning purposes according to the instructions of the Technical Government Department were constructed. According to the instructions of the Department of Industries a new experimental plant was erected at our Works to economise fuel consumption, but it was afterwards found that our method was the most economical.

Q. 63. Excepting the boiler and the steam engine and the conveying pipes, the other parts of the plant are manufactured in India.

VIII. CAPITAL ACCOUNT.

Q. 64. Block value of our property as it stood at the end of 1923 is as under:—

	Rs.	A.	P.
(a) Buildings	42,613	2	0
(b) Plant and Machinery	90,364	13	9
Miscellaneous	8,829	0	0
	<hr/>		
	1,41,806	15	9
	<hr/>		

Q. 65. The figures given in answer to Question 64 represent the actual cost of the various assets. The total depreciation accumulated amounts to Rs. 23,000.

Q. 66. The sums actually set aside for depreciation since manufacture commenced, are practically equal to the sums that ought to have been set aside for actual depreciation.

Q. 67. The cost of erecting a new Works with the same capacity of output, would be practically the same as we have incurred.

Qs. 68, 69, 70, 71, 72, 73, 74 and 75 do not arise in our case, since ours is a private firm.

IX. COST OF PRODUCTION.

Qs. 76, 91, 92, 93 and 94.

Detailed statement showing actual annual expenditure incurred by the Pioneer Magnesia Works on Magnesium Chloride manufacture at Kharaghoda according to their Books of Account from 1916 to 1922.

Comparative statement of working costs from 1916 onwards.

Serial No.	Item.	1916.	1917.	1918.	1919.	1920.	1921.	1922.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Royalty	31,847	38,006	55,741	47,296	33,557	33,772	14,874
2	Bitterns extraction and storage.	3,775	6,083	19,845	16,914	9,694	3,673	5,618
3	Factory charges . .	20,277	6,632	16,736	18,561	11,518	10,875	9,309
4	Motor Rail Wagon . .	..	..	..	..	..	..	2,661
5	Fuel	4,067	14,229	30,830	23,949	17,691	15,108	12,938
6	Drums and Packing . .	10,896	20,440	48,588	38,298	28,066	35,913	16,605
7	Railway charges . .	10,690	10,025	13,591	10,721	7,589	12,500	5,118
8	Transport and handling charges.	3,157	5,915	7,286	8,536	6,039	7,485	3,138
9	Sundries	848	2,720	2,596	5,290	2,084	2,294	1,500
10	Rents and Taxes . .	1,498	278	425	1,561	2,289	2,213	1,462
11	Travelling	726	560	1,258	936	611	1,245	1,192
12	Establishments, allowances, etc.	6,681	9,535	17,915	5,910	5,275	12,141	6,377
13	Bad debts	280	1,606	2,310	239	59	1,144	..
14	Insurance charges . .	..	..	..	..	..	..	360
15	Interests	3,124	2,807	2,385	2,951	3,437	5,514	8,046
16	Selling expenses, Commission discounts, shortages, etc.	20,349	19,579	33,806	31,370	16,468	20,864	9,803
17	Depreciation	5,957	14,268	15,000	22,843	24,933	24,000	11,844
18	Income Tax	1,625	2,645	5,572	23,566	16,114	18,907	..
	TOTAL	1,13,107	1,53,228	2,90,888	2,64,499	1,88,344	2,07,646	1,10,845

Statement of actual working costs of Magnesium Chloride per cwt. f.o.r. Kharaghoda based on annual production, at the factory from 1916 to 1922, as seen from the Pioneer Magnesia Works' Books of Account. These are exclu-

sive of railway freights, handling charges, selling commission, depreciation and income-tax payments which would all have to be counted extra.

YEARS.	Sales.	Productions.	Total annual working costs as above f. o. r. Kharaghoda.	Average cost of production without other charges shown above per cwt. f. o. r. Kharaghoda.
	Cwts.	Cwts.	Rs.	Rs. A. P.
1916 . . .	16,762	19,327	71,329	3 11 0
1917 . . .	23,610	22,896	1,00,796	4 6 6
1918 . . .	38,403	36,903	2,10,633	5 11 3
1919 . . .	32,950	36,434	1,67,263	4 9 6
1920 . . .	23,468	29,542	1,17,201	4 0 0
1921 . . .	21,979	17,034	1,23,890	7 4 3
1922 . . .	14,698	27,059	80,942	3 0 0
	171,870	189,195	8,72,254	4 9 9

N.B.—(1) The reason why the expense in 1921 is so high is because in that year the production was exceptionally low.

(2) The average cost per cwt. of Rs. 4-9-9 f.o.r. Kharaghoda as shown above can be roughly explained as under:—

	Rs. A. P.
Factory and fuel costs (about)	1 2 0
Government royalty	1 8 0
Drums and packing	1 2 0
Interest, establishment and all other sundry charges excepting those mentioned on top	0 13 9
	<u>4 9 9</u> per ton

(3) Up to the year 1921 royalty remained fixed at Re. 1-8 a cwt. irrespective of whether the price realised was higher or lower.

It will be noticed that the royalty to Government has up to now worked out on an average to nearly $\frac{1}{3}$ rd of the cost of production, which is rather prohibitive.

Q. 77. The cost of production increased in 1921 owing to the production being exceptionally low.

Q. 81. The rates of depreciation allowed by the income-tax authorities are proper.

Qs. 82, 83. About Rs. 11,800 are required annually for depreciation at income-tax rate on the total block accounts.

Q. 85. The Company requires a working capital of 1½ lakhs to 2 lakhs of rupees.

Q. 86. Most of the working capital is provided by the principal partner Sardar Sir Rustomji Jehangir Vakil.

Q. 87. The rate of interest for the borrowed capital is 8 per cent.

Q. 89. The average value of the stocks of finished goods held by the Company is about Rs. 50,000; usually 4 months elapse between production and payment.

A. MANUFACTURER'S PROFITS.

Qs. 95, 96, 97, 98. These questions do not arise in our case, as ours is a private firm.

XI. CLAIM FOR PROTECTION.

Q. 99. A. We claim that the industry possess natural advantages such as an abundant supply of raw material, *viz.*, Bitterns, because it can be had within a distance of 2 to 5 miles from the factory in large amounts as a residual mother liquor of salt.

B. Owing to the depreciated exchanges and the recovery of the Magnesium Chloride as a bye-product in Germany the industry is not likely to develop without the help of protection.

C. We do claim that the industry will eventually be able to face world competition.

Q. 100. A. Our industry is one in which the advantages of large scale production can be achieved and that increasing output would mean increasing economy of production.

B. It is probable that in course of time the whole needs of the country could be supplied by the Home production.

Q. 101. Heavy sized textile goods cannot be manufactured without Magnesium Chloride. It used to be imported from Germany till the beginning of war. In case there is no home industry developed, the prices might be inflated at any time by the German manufacturers. Again Bromine can be recovered from the Bitterns and it would be very useful for chemical industry and medical preparations and hence the industry is of importance on national grounds also.

Q. 102. The industry is peculiarly suitable to Indian economic conditions as the bitterns (from which Magnesium Chloride is manufactured) can be had as a bye-product of Government Salt Works.

Qs. 103, 104 and 105. (1) The protection offered to the industry by way of customs duty on the imported stuff, is practically negligible owing to the low price of foreign Magnesium Chloride.

(2) Protection offered to our industry by way of transport charges between the country of production and the port of entry, is rather negative, *i.e.*, to say the foreign manufacturer is at an advantage in that respect.

The amount of protection which we consider necessary for our industry is to levy a duty of at least Re. 1 8-0 per cwt. (*i.e.*, about 50 per cent. *ad valorem* duty according to present rates) on the foreign imported Magnesium Chloride.

Q. 106. On the basis of 20s to 24s warp \times 30s to 36s weft of yarn used in a mill and taking an average of 100 size per lb. of yarn (which is altogether a very high percentage to take for all India), it appears that less than $\frac{1}{4}$ lb. of size is used on every 1 lb. of cloth woven. The average approximate cost per lb. of size mixing in a mill at the present day prices (Magnesium Chloride at Rs. 3-12-0 per cwt.) would roughly amount to 2 $\frac{1}{4}$ as. of which the proportion of Magnesium Chloride is only about $\frac{1}{24}$ th of 30 pies, *i.e.*, 1 to 1 $\frac{1}{4}$ pies per lb. of size used.

In other words the total cost of Magnesium Chloride per lb. of cloth woven cannot be more than $\frac{1}{4}$ pie at the very highest computation which is altogether negligible (and the increase owing to protection duty would be more negligible still) and the millowner's arguments of increase in costs would fall to the ground in view of the other important negative advantages accruing to the country by the continuance of the industry in India.

Statement V.—Reports received from the Pioneer Magnesia Works with their letter, dated 18th November 1924.

I have the honour to submit herewith for perusal and information of the Board two reports in original recently received from America and England as the direct result of my personal exertions and inquiries while on tour in those countries a short while ago.

I am appearing before the Board at Poona on Friday next the 21st instant to give oral evidence, but before doing so, I have taken the liberty of submitting these reports to you as throwing some additional light on the question and giving much useful information as regards the variety of uses to which this substance is put and the possibility especially under present conditions of building up a good export trade from our side.

Two spare copies are also sent for ready reference and I should be grateful by your kindly returning to me the original letters after you have done with them.

Robert A. Suffern,
Import and Export,
96, Wall Street,
New York.

September 20, 1924.

Mr. B. S. Lalkaka,
London, England.

DEAR MR. LALKAKA,

As requested I enclose a report I have made for you after investigating this market in regard to the production and uses of Magnesium Chloride, as well as the latest statistics which the United States Government has collected regarding its importation into the country and its value on the import invoices.

I am sending a copy of this to Bombay to you also, so that if it should miss you in London you will not be delayed in getting the information it contains, which I hope will be of service to you. I placed your order with Sackstein Overseas Company for the old clothing you desired, and trust it will show you a good profit. I rather think that old clothing is becoming scarce in the world, owing to the more or less impoverished condition of the European Nations, who formerly supplied a considerable portion of it. If Russia should come into the market for supplies I am afraid the prices will rise and the supply dwindle. With very best regards I remain,

Yours very truly,

(Sd.) CECIL T. WALKER.

Magnesium Chloride from bittern waters of salt works was produced by four companies of the United States last year 1923, three of these companies being located in the State of California and one in the State of Michigan. Although the State of Utah is a large producer of salt there were no shipments of magnesium chloride from there. The United States Geological Survey roughly estimates the domestic production and sales for 1923 at 28,000,000 pounds most of which was sold as "commercial" crystallized chloride 97 per cent. or more pure; but several thousand gallons of solution was also sold. This compares with a production in 1919 by seven establishments of 26,282,436 pounds value at \$445,087 or approximately \$34 per ton of 2,000 pounds.

Prior to the war there was no domestic production, the requirements of the country being supplied from abroad, principally from Germany. When

the German imports were shut out through the war the United States found it necessary to produce its own requirements.

The increased use of magnesium chloride especially in the building industry in the making of magnesia cements and stucco, which are known under various trade names, has greatly augmented the demand so much so that the imports of 1923 more than doubled those of 1922. The increased demand since pre-war days is even more pronounced, as shown by the figures of imports, mostly from Germany, in 1914 amounting to 2,515,752 pounds of commercial crystals, with no domestic production worth considering, while in 1923 there were imported 23,052,385 pounds and domestic production had reached about 28,000,000 pounds, which indicates a consumption of about 25,000 tons for the year.

Many industries find good use for this compound. It is chemically used in the manufacture of hydrochloric acid; in the making of various magnesium salts; as a catalyst in various oxidation processes; mixed with common salt as a bleaching agent; in the extraction of sulphur from calcium sulphate; in the making of chlorine and magnesia. It is used in the manufacture of beer, paper and ceramics. It is used for the fireproofing of wood and in the mining industry for the treatment of timbers, and to chill the drilling tools when drilling for salt deposits so as to prevent the dissolution of the salts. It is used as an ingredient in the manufacture of disinfectants, compounds for the laying of dust during sweeping and fixing the dust on roads; and as a refrigerating medium. In the textile industry it is used in the dressing and filling of cotton and woollen fabrics; as a size; as a thread lubricant in weaving calico and also in dyeing and in the carbonization of wool. It is used in the manufacture of fire extinguishers. In the building industry it is used as an ingredient of magnesia cement in oxychloride flooring, which is extremely used in subway cars and kitchens of the new apartment houses in New York city. In the making of stucco it is found to be a valuable ingredient.

The duty on imports is five-eighths of a cent a pound or say \$12.50 per short ton, while the selling price in the New York Import duty and market at this writing is \$34 per ton of 2,000 pounds price. and is packed in drums of about 550 lbs., though this weight varies with manufacturer. There are two grades the "solid" or fused and the flake, the latter sometimes being packed, if not usually, in bags of 100 lbs.

The imports of 1921 aggregated 7,365,812 lbs. valued at .012 cents.

The imports of 1922 aggregated 11,403,837 lbs. valued at .010 cents.

The imports of 1923 aggregated 23,052,385 lbs. valued at .008 cents.

These imports were undoubtedly shipped in under a very low freight rate, probably as ballast, in order to be able to compete under the present protective tariff.

CECIL T. WALKER.

Import Department.

40, Western Street,
London, S.E. 1, 3rd October 1924.
Scriven Brothers and Company.

Mr. B. S. Lalkaka, B.A.,
of The Pioneer Magnesia Works, Bombay,
163, Cromwell Road,
Kensington, S. W.

DEAR SIR,

We confirm your interview on the subject of magnesium chloride. We shall be pleased to have analysis and suggestions for business, but your price must be sufficiently competitive to make business possible.

German magnesium is offering at about £4 to £5 per ton of four iron drums, but this description is not usually sought after as the stuff corrodes very badly.

Thank you for your references, which we are duly taking up.

Yours faithfully,

SCRIVEN BROTHERS & CO.

The Dominions Producers Agency, Limited.

41, Great Tower Street,
London, E. C. 3.
30th September 1924.

B. S. Lalkaka, Esq.,
C/o Messrs. Thomas Cook & Son,
Ludgate Circus, E. C. 4.

DEAR SIR,

Magnesium Chloride.

We have obtained a quotation from Germany for the above, which we pass on to you, in case of interest, as follows:—

“Magnesium chloride fused, including 300 kgdrums, hard-wood casks of 300 kg. at £4-6 per 1,016 kg. prompt delivery from factory f.o.b. Hamburg.”

These suppliers inform us that the market for this article is expected to advance considerably in the near future, and that the German Chloride Magnesium-Verband is now quoted on a basis of £5 per 1,000 kg. including packing, f.o.b. Hamburg.

The above prices are exactly as we have received from them and we thought it worth while letting you know the present state of the market, as a guide to your future operations.

The German article is, of course, subject to an addition of 5 per cent. reparation duty which would not have to be paid on your imports, but on the other hand rates of freight from Indian ports to the United Kingdom are higher than to the Continent. The present rates are as follows:—

Bombay—London . . . Rs. 50 per ton approximately.

Bombay—Hamburg . . . Rs. 25 per ton approximately.

The homeward rates are not quoted in London, being fixed in India, but the above figures are based on general rough cargo rates.

We find that magnesium chloride is exported very largely from Germany to India. The Hansa Line who have frequent sailings from German ports to Bombay and Karachi have this cargo on practically every one of their steamers. It is usual to ship from 50 to 100 ton lots.

Picking bands and roller skins.—We have obtained sample cuttings of one or two qualities of the above and have drawn up quotations c.i.f. Bombay. We shall be glad to know whether we are to hand these to you personally, if you will be calling again at this office on your return to London, or whether you wish us to despatch these direct to Messrs. Vakil & Co.

Yours faithfully,

For and on behalf of

The Dominions Producers Agency, Ltd.

(Sd.)

Assistant Secretary and Export Manager.

Statements VI.—Supplementary Statements submitted by the Pioneer Magnesia Works, Bombay, dated 14th December 1924.

In reply to your No. 1279, dated Poona, 24th November 1924, I have the honour to return herewith the original papers received from you together with a supplementary statement containing additional information as required by the Tariff Board at the time of my Oral Evidence before them on the 21st ultimo.

Beyond a few verbal alterations I could have no fault to find with the actual record as it stands of the oral evidence taken, though in order to clear some possible misapprehension as well as to elucidate further the question before the Board, I have taken the opportunity of offering certain explanatory remarks which I trust will meet their favourable consideration.

Supplementary statements of the Pioneer Magnesia Works.

(1) *200 per cent. duty.*—Undue stress seems to be laid upon the point that the Pioneer Magnesia Works cannot stand without such a high protective tariff wall. Far from it. At the time their original statement was prepared the German Magnesium Chloride was selling in Bombay as low as between Rs. 1 and 2 per cwt. and under those abnormal conditions it was thought impossible for the local Industry to exist unless a prohibitive tariff was levied which would make it possible for them to meet such cut throat competition. In fact it was after full discussion with the then Director of Industries that the undersigned was induced to suggest this as a hypothetical figure only, and it should by no means be literally interpreted or taken as a standard to apply under all circumstances and at all times.

We need not go too deeply into the question of what made such low prices possible, but suffice it to say that this could not be but for certain extraordinary conditions prevailing at the time in Germany which gave them an additional impetus to invade and capture the foreign markets irrespective of whether the drop was truly warranted or paying and could be maintained or repeated by them in the future.

The normal price of the imported article in pre-war days for years and years past ruled somewhere between Rs. 3 and Rs. 3-8 a cwt., and I submit that judging from certain data as already discussed in the evidence, when things are more settled, it would be safe for all practical purposes to take this as a more or less stable figure in our calculations, for considering the duty question to protect the home industry.

(2) *Re Rs. 1-8 handling and freight charges from Kharaghoda to Bombay.*—This requires some explaining—When the statement was made the charges roughly worked out as under:—

Rs. A. P.

0 12 0 Freight per cwt. from Kharaghoda to Bombay for full wagon load only. (For smaller consignments it came to about 6 annas more).

0 6 0 From Railway station to Agent's godown in Bombay.

0 6 0 From Agent's godown delivered up to mill premises.

1 8 0 Total per cwt.

N.B.—The last two items are taken approximately and might fluctuate according to prevailing labour and cartage rates and the relative mill distances. It will be noticed that for the present for a temporary period of six months only the B., B. and C. I. Railway, have been good enough to reduce their freight rate on wagon loads by about $2\frac{1}{2}$ annas per Bengal maund which would bring this charge down to say Re. 0-8-9 instead of 0-12-0 per cwt. Besides after great trouble and persuasion, in consultation with the Bombay Agents, we have been trying and have sometimes succeeded in inducing the mill owners to buy wagon loads at a time which would take

the staff right into their own mill siding instead of by the more cumbrous and costlier method of double handling—so that in all probability in course of time the freight and handling charges to Bombay may be expected to be down by about 8 annas per cwt., i.e., to Rs. 20 instead of Rs. 30 a ton. But that would depend upon the continuance of the lower freight charges by the Railway as much as on the mill owner's attitude as shown above, over which we could have no control.

(3) *The fundamental proposition before the Board is the following:—*

(First) what are the natural advantages; secondly what reasonable assurance can be had that eventually the Industry would be able to dispense with protection; thirdly that without protection the Industry would not develop very rapidly.

(Firstly) it is not necessary to dilate on this point as sufficient has been said already to show that the Industry situated as it is on the outskirts of the extensive Government Salt Works at Kharaghoda does possess certain very great natural advantages not only as regards raw material and market for the finished product, but also so far as many other facilities, e.g., of labour, transport, material resources of the company, vicinity of fuel supply and other Factory needs are concerned, and for our purposes it may I think be assumed that there is no very serious apprehension in the mind of the Board on this score. Moreover Government experts have themselves estimated that as much as 193,000 tons of Magnesium Chloride is annually wasted in the Indian Bitterns (*vide* page 33 of the printed evidence) of which only a very small percentage could at present be utilized. In regard to firewood, however, the advantage was negated by the President on the score that a hundred miles is too long to draw firewood from and that space for space, in the same wagon six times more coal could be carried than firewood. I shall attempt to show that after all we are not so badly off in this respect. Kharaghoda is within easy access of the fire-wood district, being only 18 miles from the important junction station of Viramgam, and although Godhra is the principal centre of supply and is over a hundred miles, there is plentiful supply available round about us and we have experienced no difficulty whatsoever in obtaining all the quantity required at fairly reasonable rates.

The other argument that coal can be carried six times more than wood in the same space, is open to question. For on inquiry I understand that if a 16-ton be taken and filled up to a certain point it will carry 16 tons of coal and no more, for the simple reason that though it can contain more if filled to the brim, the Railway Company would not permit of overloading. Besides if only $\frac{1}{4}$ th can be carried, that would mean only 3 tons of wood which is not borne out by facts; for in actual practice we do get in the same class of wagon as much as 400 Bengal maunds or about 14 tons of fire wood and if that be so, it would be admitted that there is no particular disadvantage against the Industry. Moreover there is always the possibility of our flues being adapted to burn coal instead of fire-wood if that be found more economical and efficient in the future. We have, however, preferred fire-wood so far, on technical advice, as this heat seems more suited to our production than coal.

Ready access to the market for the finished product.

Page 10 of Oral Evidence—last paragraph. As pointed out in the present statement, the charges to be incurred between Kharaghoda and Bombay are more likely to fall to Rs. 20 a ton under certain conditions, and this is bound to tell advantageously on our costs as laid down in Bombay.

Secondly. *How can the Industry do eventually without protection?*

The President has laid the onus upon us to show what reasonable probability there is of our competing with Germany without some sort of protec-

tion, having regard to the peculiar advantages they enjoy which enables them to sell at such low prices. It is not possible to give a categorical answer or even to assert with any degree of certainty or reasonable probability, without making some sort of assumption which may be more or less conjectural and arbitrary and may or may not come true.

Two main questions arise—Assuming that protection is granted for say 5 or 10 years to come, what will the import price then be and at what lowest rate can the Indian Magnesium Chloride be placed in the Bombay market at that time? In the oral evidence I have indicated that in my opinion the stable import price will more or less rule somewhere between Rs. 3 and Rs. 3-8 a cwt. as in pre-war days and basing our own cost of production on an estimated yield of say about 3,000 tons which is well nigh 50 per cent. less than the maximum capacity of our present plant but which could nevertheless be safely taken as the most economical unit of production and within our limits. I will try to convince the Board from the accompanying table of costs that if all goes well, we can easily withstand any outside competition however keen, when the period of protection expires. As in the case of the Steel Industry which the President has quoted, more or less the same standards might apply here also, *viz.*, that given efficient management and sufficient output, the cost of production would come down to such a level when our Industry would be capable of holding its own. The information here given and the figures submitted will it is hoped enable the Board to determine as in the case of steel, what is the probable price at which imported Magnesium Chloride would enter India and what would be the probable difference between ours and the imported article and to decide what should be the amount of protection. (For comparative statement of production costs *vide* Schedule B.)

I venture to submit that the cost of production rises or falls with the increase or decrease in production as the figures given in Schedule B, will show.

Then the other points to consider are that given a reasonable assurance for the safety of the industry, there may be other local competitors in the field; that a much greater stimulus would be offered for spending on research work and finding out improved methods of more economic working and for recovering other bye-products which latter though at present possible, could not be worked as a commercial proposition; that further extensive uses for Magnesium Chloride as indicated in the report from America be developed in the country; and last not least that this might ultimately develop into a healthy and permanent industry of sufficient importance and dimensions which besides giving employment to our own countrymen and fulfilling the needs of the textile trade, would bring added revenue into the coffers of Government without putting any undue burden on anybody. It also means saving our country from being at the mercy of the foreigner and from so much exploitation from outside when such excellent material is at hand which otherwise would go to waste.

On the question of quality as well as the ultimate cost to the consumer, the Board has had independent testimony from the Bombay mill-owner's representative Mr. Stones which goes to show that our quality stands well in comparison with the German product even though it may not be as white in appearance, and further it is not an article of daily use or consumption by the general public and the cost of a 3rd of a pie per lb. of cloth to the mill-owner can safely be considered as negligible. Coming to the question of export even though it be eliminated from our view at present as the President has remarked, it might be well to consider how far it means added production and consequent lowering of costs and whether it would be advisable to go in for it even if the external trade may not be so profitable in comparison with the internal sales. Then again we must not forget that from the country's point of view export always means so much added wealth to restore the balance of trade in our favour and this angle of vision should not be discarded. Moreover it must not be forgotten that in granting protection the Government of India *i.e.* in other words the general tax-payer also

benefits to the extent of 50 per cent. of the nett profits of the company in keeping with the terms of their agreement.

The Board has to consider how far we have made out a case in favour of protection and whether in their opinion it would be advisable to let the Industry die rather than that a moderate amount of protection which hurts nobody be granted. The ways and means are a secondary question, and could be adequately settled after careful examination of the various items and information submitted. Again just now our Factory remains idle for 8 months in the year but when the maximum output is assured, it can work the whole year round which would mean an immense saving in charges and a great advantage could be secured in other respects also.

Although our relations with the Salt Department at Kuaragodha are most cordial, so long as salt remains the main Manufacturing Industry and the conditions of collection and storage of Bitterns in the Pan area remain what they are we are greatly hampered in our working and it is not possible for us to dictate to Government even though it may mean greater facility or economy of working for us. For their needs have to be consulted first and ours afterwards.

Discriminating Protection.—The President has said that this means discrimination between those industries which would eventually be able to stand on their own legs without help and those who would not. Could not this also apply to the amount of protection needed to keep a particular Industry alive against foreign aggression, and I do not think it can be urged against us that we have failed to make out a case to show how far we come under this category and whether a moderate amount of protection is deserved or not. What that amount should be and for how long and in what shape or form are questions which we are perhaps not competent to deal with, and we have no doubt but that the Board will take a broad and sympathetic view of the matter and see that the industry is not wiped out of existence for no fault of theirs. To argue, that because the Company has made handsome profits in the past and can afford to lose now or shut its doors if it cannot stand without protection, also that why should the Board take money out of the pockets of the general tax-payer to enrich a private party; and what if this manufacture was started comparatively very soon after the war, why could it not be improvised again in a similar contingency in the future, etc., might be answered thus.

True—good profits were made, but those were under extraordinary circumstances arising out of the Great War and cannot be looked upon as permanent or likely to be repeated. We were not the only people that made money—hundreds of thousands of others did the same and more especially the mills who were our only customers had their coffers filled to overflowing and were in no way affected. On the contrary we did a distinct service to them, for had we not stepped in, the mills would have had either to do without Magnesium Chloride or to use other substitutes which might or might not have suited and they would have had to pay through the nose to get the foreign article. In fact we filled the gap, gave them a good article and managed to keep them supplied without a single wall or complaint at comparatively 50 per cent. lower value than the foreigner.

We have paid a few Lacs to Government in royalty—spent large amounts in wages and given our mite in the shape of Income-tax, which all meant a potential nett gain to the country at the rate of about a lac of rupees per annum as the figures in the printed evidence show and if in spite of that it is thought that the Industry is not worth protecting, it would be more our misfortune than anything else.

We want not so much additional duty under all circumstances as a dumping duty against unfair foreign exploitation and if you take the instance of far more advanced countries like Australia and America it will be noticed that in certain cases like the German toys and even silks and ready made clothes, as much as 60 to a 100 per cent. customs duty is levied in America for the protection of the home industries.

Fire-wood costs in 1920-21-22 have been as under:—

Years.	Old Balance in rupees.	Purchased during the year.	Total Rupees.	Consumed during the year.
		Rs.		Rs.
1920	1,250	31,142	32,392	17,692
1921	14,700	6,481	21,181	15,103
1922	6,078	6,939	13,017	12,938

Fire-wood costs come to between Rs. 35 and Rs. 40 per 100 Deshi maunds = 50 Bengal maunds laid down at Kharaghoda duly cut and stacked and after allowing for wastage and less per centage, etc. It would also depend upon the class of wood and the distance from which it has to be brought. We do not burn coal—but the approximate price for good 2nd class coal may come to about 22 Rs. a ton at Kharaghoda I think.

Transport and Handling charges.—I have ascertained and find that those shown in our previous statements referred to charges incurred on Magnesium Chloride only wherever sent after the same had been put in wagons at Kharaghoda. Freight inwards and outwards and costs incurred in handling all other material are detailed under other respective heads, *e.g.*, fuel or drums or Factory and so forth.

Packing charges.—At the rate of Rs. 7 for each drum containing 7 cwts. Magnesium Chloride the cost comes to Re. 1 per cwt. as per separate details below.

Rs. 5. Cost of $1\frac{1}{2}$ sheet used, weighing about 25 lbs. at the rate of Rs. 23 per cwt. (This was the cost of our old drums when the statement was prepared.)

Re. 1. For sundry material like painting and soldering, rivets, etc.

Re. 1. Making charges.

Rs. 7

Just now owing to the relatively cheaper cost of drum sheets as well as labour—the packing would come to at least 2 annas per cent. cheaper than before.

Railway freights.—A schedule of various concession rates both in Bengal maunds and per cwt. now in force is submitted herewith (*vide* Schedule C). The relative distances from Kharaghoda in miles are also shown. They are of course for bulk and not for small consignments.

Selling commissions.—Our experience tells us that it is often more economical and effective to work through influential agents than departmentally. Besides, the latter does not necessarily mean much saving, as otherwise we would have to employ a fairly adequate staff which would swell our establishment costs.

Depreciation charges.—A statement (*vide* Schedule A) showing the percentages allowed by Government both for purposes of our agreement with them as well as for Income-tax is submitted herewith.

Income-tax figures.—Both as regard actual amount of tax paid and the amount on which it was assessed are not ascertainable from our own books. They could only be obtained from the income-tax authorities at Ahmedabad where we are assessed every year. In their notices as well as in their payment receipts, the income-tax authorities do not show any figures separately even

though requested and hence I am unable to furnish the Board with the requisite information.

The figures published in the printed statements present the actual state of affairs as adjusted in our own books of account and we regret it is not possible for us at the present moment to determine the exact difference in total earnings and depreciation as requested. It is true that in good years we carried more towards depreciation though only a portion thereof was allowed to be written off for purposes of income-tax.

Salt being an Imperial monopoly and the Pritchard Salt Works of Government being worked departmentally, our Magnesium Chloride Industry at Kharaghoda is subject to the supervision of the salt authorities and under the existing agreement with the Secretary of State whatever royalty was paid hitherto or profits accrue hereafter would go to the Government of India and not to the Bombay Government after accounts are audited by the accountants and checked by the Chief Account Officer of the Government in Bombay. It would not be possible I think to revise the question of royalty with a view to obtain a refund from the Government as suggested by Mr. Ginwalla.

Royalty.—It is argued that according to the existing terms, we are first allowed a return of 10 per cent. before dividing the profits with Government. This is not literally true nor does it benefit or help us materially—for the reason that in lieu of this we are not allowed to charge the interest on capital as well as income-tax to the revenue account. These two items often swallow up much more than the 10 per cent. allowed on gross expenditure, and after all they are out of pocket items so far as we are concerned and fall entirely on our shoulders in bad years when nothing is earned. Besides the loss is also ours. Because the shareholders have got their capital back under certain extraordinary and abnormal conditions is no reason why they should go on losing without any hope of return under persistent ill-luck or unfavourable conditions in spite of their best endeavours or without any fault on their part.

Lastly unless the production and sales are sufficiently enlarged it would not be possible to make any decent return after meeting the half share of Government, and it would leave but a bare margin to the Company for all their capital and zeal and work and risk of loss and in arriving at a figure of cost and a reasonable margin of profit the Board should kindly take all these factors into consideration and adjudge the protective duty accordingly.

SCHEDULE A.

Statement of Depreciation on the fixed capital expenditure for the year 1923 prepared by the Managing Partner Mr. B. S. Lalkaka.

Heads.	Particulars.	Capital amounts.	Depreciation per cent.	Depreciation allowed.
		Rs. A. P.		Rs. A. P.
I	Bittern Settlers . . .	3,388 0 0		
	Sweet Water Tank . . .	722 6 0		
	Bittern Reservoirs . . .	16,140 0 0		
	Miscellaneous Small Tanks and Cisterns.	788 0 0		
		21,538 6 0	2½%	538 7 6

Heads.	Particulars.	Capital amounts.			Depreciation per cent.	Depreciation allowed.		
		Rs.	A.	P.		Rs.	A.	P.
I	Magnesia Shed	8,491	8	0				
	Chimney	472	5	0				
	Store Rooms	360	2	0				
	Miscellaneous quarters	3,262	3	0				
	Laboratory, Kitchen and Out-houses.	2,027	0	0				
	Two Bungalows	26,000	0	0				
	Motor Shed	2,000	0	0				
	Boiling Fluids	1,864	0	0				
	Railway Siding and Ramp	6,200	0	0				
	Additional Shed and Bromide Plant.	6,289	4	0				
	Drums Factory	5,179	0	0				
		62,145	6	0	5%	3,107	4	3
I	Cooly Quarters	3,000	0	0				
	Clerks' Rooms	600	0	0				
		3,600	0	0	10%	360	0	0
	Motor Rail Car	32,000	0	0	20%	6,400	0	0
II	Steam Engine Boilers Pumps, Pulleys, Mechanic Shop, etc.	5,366	13	9	5%	268	5	6
II	Copper Pans and Pipes	15,000	0	0				
		600	0	0				
		15,600	0	0	7%	1,170	0	0
	Sundry New Additions	1,506	2	0				
	GRAND TOTAL	1,41,807	1	9		11,844	1	3

SCHEDULE B.

Comparative Statement of Production costs (approximate only) on an estimated yield of 8,000 tons as against 1,000 tons per annum.

	Over 3,000 tons== 60,000 cwt.			Over 1,000 tons-- 20,000 cwt.		
	@ about per cwt.			@ about per cwt.		
	Rs.	Rs.	A. P.	Rs.	Rs.	A. P.
Bitterns Collection calculating 2½ tons Bitterns to 1 ton of Mag. Chloride.	15,000	0	4 0	6,250	0	5 0
Labour and Factory charges at Kharaghoda works.	18,750	0	5 0	7,500	0	6 0
Fuel—say Firewood required at the rate of Md. 1½ per cwt. of Mag. chloride and calculating the price to be Rs. 40 per 100 mds.=50 Bengal Maunds only.	26,250	0	7 0	10,000	0	8 0
Packing at the rate of 3 drums to a ton.	52,500	0	14 0	20,000	1	0 0
Depreciation calculated on present Block A-C of Rs.1,41,000 at rates allowed, by Govt. Vide Schedule A.	11,844	0	3 1½	11,844	0	9 5½
Interest charges on say Rs. 2,50,000 in case of large output and Rs. 1,75,000 roughly on a smaller output, the block account being the same in both cases at 7% rate of interest.	17,500	0	4 8	12,250	0	9 9½
Establishment and supervision charges, rents taxes and sundries, contingencies, etc.	12,000	0	3 2½	6,000	0	4 9
	Rs. 1,53,844	i.e. 2-9-0 per cwt.		Rs. 73,844	i.e. 3-11-0 per cwt.	

Add freight and handling in Bombay with selling commissions and margin of profit for the Company.

NOTE.—This shows that even after allowing for certain variations, there is ample scope and every possibility of reducing our cost by at least Rs. 15 to Rs. 20 a ton if not more. What a tremendous difference and saving that would mean in overhead costs, on a sufficiently large output? This is enough argument to prove that with due encouragement the industry can hold its own, and be independent of any protection in due course when this additional duty is taken off.

SCHEDULE C.

Traffic Superintendent Office,
Bombay,

Dated 19th June 1924.

Copy.

No. R. 904/14/69.

Memo. with effect from the 20th June 1924, Bittns. C. C. D. R. L. from Kharaghoda to the following stations will be charged as under :

Approximate mileage from Kharaghoda.	Per Bengal Maund.	per cwt.
	Rs. A. P.	Rs. A. P.
Indore	0 9 0	0 12 6
Ujjain	0 8 10	0 12 3
700 Delhi Queens Road or Delhi L. Gate	0 12 3	1 1 1
Cawnpore	0 13 11	1 3 6
60 Wadhwan	0 2 9	0 3 10
90 Nadiad	0 3 4	0 4 8
180 Surat	0 5 9	0 8 0
58 Ahmedabad	0 2 9	....
	plus town duty @	
	0-1-6	
	0-4-3 annas per	0 5 10
	Md.	
375 Bombay	0 6 2	0 8 8
Morar Road	0 12 3	1 1 1
Agra Fort	0 12 3	1 1 1

SCHEDULE D.

Imports of German Magnesium Chloride in 1924 from Bombay Customs returns.

Months.	Cwts.	Import Price per cwt.
		Rs. A. P.
January	8,719	2 9 0
February	9,328	2 9 6
March	3,810	2 13 6
April	842	3 0 9
May	5,663	3 2 3
June	708	3 0 9
July	3,265	3 11 6
August	3,279	4 7 9
September . . . . .	..	....
October	4,105	4 8 0
	39,719	Total for 9 months.

November.

December.

NOTE.—There has been no new production at Kharaghoda, our factory being shut down for the past 2 years. The above total comes to say 40,000 cwt.—2,000 tons, the total import value being Rs. 1,26,057 or Rs. 63 a ton.

Statement VII.—Further supplementary statement submitted by the Pioneer Magnesia Works, dated the 17th January 1925.

Referring to our letter, dated December 14th, with accompanying supplementary statements as required, I have the honour to inquire whether the Board have come to any decision and if not when our case is likely to be decided finally and the result made known to us.

Since supplying the import figures mentioned in our last statement, additional figures up to December 1924 have been furnished to us from the Bombay Customs Returns, which we beg to write below for the information and guidance of the Board:—

1924.	Foreign Imports Cwts.	Import value Rupees.	Average import rate i.e., per Cwt.
			Rs. A. P.
From January to August .	35,614	1,07,598	3 0 4
September	6,518	26,103	4 0 0
October	4,103	18,459	4 8 0
November	6,785	33,711	4 15 6
December	15,594	66,600	4 4 4
TOTAL .	68,616	2,52,471	at 3 10 7 per cwt. average.
		(i.e., 3,430 Tons about.)	

It will be seen that a large quantity has come in during the last month and a goodly portion of it is sold in the market at even below costs in some cases.

Unless urgent steps be taken to stop this dumping, our industry, we fear, is doomed and we should be obliged if the Board will be pleased to do something in the matter.

THE PIONEER MAGNESIA WORKS, BOMBAY.

B.—ORAL.

Oral evidence of Mr. B. S. LALKAKA, General Manager and Partner, recorded at Poona on 21st November 1924.

President.—First of all, there is one point to be cleared up. In your original representation you asked for 200 per cent. duty, but in your answer to the Questionnaire you say that the amount of protection necessary is an *ad valorem* duty of 50 per cent.

Mr. Lalkaka.—I only took a hypothetical case. At the time when the original scheme was put forward German magnesium chloride was coming at about Re. 1-8 to Rs. 2 a cwt. which would hardly be enough to cover the handling and the freight charges from Kharaghoda to Bombay. I thought that unless 200 per cent. protection was given under such circumstances it was impossible for the industry to go on and that was why I made that proposal.

President.—Surely the c.i.f. price was never as low as Re. 1-8 a cwt.?

Mr. Lalkaka.—It was.

President.—The Millowners' Association told us that the lowest selling price in Bombay was Re. 1-12.

Mr. Lalkaka.—It was between £1 10s. to £1 15s. per ton c.i.f.

President.—The lowest figure the Sizing Materials Company gave was for June 1923, *viz.*, £2-17-6 a ton, which at 1s. 4d. exchange, came to Rs. 42-12. That is the lowest figure we have had for the c.i.f. price. We have, however, been told that the selling price in the bazar was a good deal lower. You will admit, I think, that, if there is a case for Protection, the duty should be based on the c.i.f. price and not on temporary fluctuations in the bazar price, due to overstocking. This 200 per cent. proposal was based, I understand, on a price of Re. 1-8 per cwt.

Mr. Lalkaka.—Yes.

President.—That would mean a duty of Rs. 3 per cwt. Is that what you were aiming at?

Mr. Lalkaka.—It would come to somewhere about that.

President.—How much did you think the duty would be? Had you any definite idea in your mind?

Mr. Lalkaka.—What I had in my mind was to bring the cost of the imported article to apparently the lowest cost of production at which it could be placed in Bombay.

President.—But had you any definite idea as to the amount of duty in rupees per cwt.?

Mr. Lalkaka.—Supposing the German price was Re. 1-8 in Bombay then the amount of additional duty that would have to be levied would be about, say, Rs. 2 per cwt.

President.—That would only raise the price to Rs. 3-8. Moreover, if the import price is Re. 1-8, a duty of Rs. 2 is not 200 per cent. Finally, it is difficult for me to believe that you regarded Rs. 3-8 as a price that would pay you.

Mr. Lalkaka.—It would not pay us.

President.—What is the good of it then? What is the use of putting on a very heavy duty if it is not going to pay you? What I imagined you meant

was that, if the price was Re. 1-8, you wanted a duty of about Rs. 3 per cwt. I want to know whether there was anything definite in your mind, or whether you asked for 200 per cent. on general lines. If you had nothing definite in your mind but simply thought that the price being so extraordinarily low the duty would have to be very heavy, it is quite open to you to say that.

Mr. Lalkaka.—That was in a general way the idea.

President.—In your answers to the Board's Questionnaire (Nos. 103 to 105) you have asked for a specific duty of Re. 1-8 which you said was about 50 per cent. *ad valorem*. If you meant that the c.i.f. price in Bombay was Rs. 3 a cwt. that would raise the price in Bombay to Rs. 4-8. At the same time the price of Re. 1-8 plus 200 per cent. also comes to Rs. 4-8. Is about Rs. 4-8 the price you want to get?

Mr. Lalkaka.—I should think so. That would just cover it, and I have worked out the figures.

President.—I will turn now to the fundamental proposition before the Board. The Fiscal Commission laid down certain conditions which should ordinarily be satisfied before Protection is given. These conditions need not be satisfied in the case of very important industries which are necessary on national grounds. But I do not think you will maintain that the Magnesium Chloride industry is on a par with the Steel industry, so that we must treat it as one of those that fall under the ordinary conditions. I do not think we need dwell upon one of the conditions, which comes second in the order. But the two important conditions are (1) that the industry should possess natural advantages and (2) that there should be reasonable assurance that eventually the industry will be able to dispense with Protection. The third condition was that without Protection the industry would not develop very rapidly. There is no need to ask any particular questions on that, as it will follow from the evidence given on other points. But the other two conditions are very important. I would like you to tell us what natural advantages the industry possesses.

Mr. Lalkaka.—I have already indicated them in my answers. We have an abundance of raw materials as much as to manufacture three or four times the needs of India. They are situated at a very convenient locality. The market for the finished product is practically near at hand. Then in point of railway facilities we have nothing to complain of. We are getting enough railway, wagons to despatch our goods. In the Government salt works they have got a network of railway lines and we have connections to the factory. We can send out our goods to different parts of India and there is no lack of goods wagons for us because, salt being the main industry, there are a number of wagons always available at the salt factory, and we find no difficulty in getting wagons. In point of fuel—we use firewood—we find it somewhere round about.

President.—You have told us “firewood which is the principal fuel is brought from a distance of 100 miles.”

Mr. Lalkaka.—We can also get it from Viramgam which is about 18 miles distant. The answers to the Questionnaire were drawn up in my absence.

President.—You had better send us the right answer. I should not say myself that, if the fuel has to be brought from a distance of 100 miles, you have any particular natural advantage. It is a bulky article and would not stand a heavy freight charge.

Mr. Lalkaka.—For that matter the Ahmedabad Mills get their coal from several hundreds of miles.

President.—My point is rather this.* If you take the relative weight of coal and wood, you can carry about six times the quantity of coal in the same

* This passage has been misreported. The exact form of the question cannot be recalled, but the point raised was the relatively low calorific value of wood as compared with coal.

space. Wood takes more space. This answer that you have given about firewood, that it is brought from 100 miles, is apparently misleading, and it is perfectly open to you to send us a revised answer.

Mr. Lalkaka.—Yes.

President.—Do you consider that you are all right in respect of labour?

Mr. Lalkaka.—I see they have given a wrong answer. We find no difficulty as regards labour and it is found at very close quarters.

President.—I remember reading in one of the documents you have sent us that the labourers in this area are accustomed to work in salt manufacture, and are a very hardy and vigorous race of people and work very well. But it would be a very difficult matter, I imagine, to compare labour conditions in Stassfurt in Germany and those in Kharaghoda. Quite possibly in Germany they use labour saving appliances on a large scale. In the ordinary sense you seem to be advantageously situated as regards labour, and I do not think there will be any disposition on the part of anybody to contradict that.

Mr. Lalkaka.—I should think we are very advantageously situated as regards labour and moreover we do not require much labour.

President.—So the advantages you claim are—

- (1) An abundant supply of raw materials, i.e., the bitterns, or 'mother liquor' out of which the sodium chloride has been taken.
- (2) Large markets at a reasonable distance.
- (3) Cheap fuel (I am a little inclined to question this advantage).
- (4) Abundant and cheap labour.
- (5) Good railway communication and facilities for transport.

You say you are advantageously situated in being near your market. How far off are you?

Mr. Lalkaka. For instance, Ahmedabad is only 60 miles from Kharaghoda.

President.—Take Bombay, which is the bigger market of the two. You have told us that, after you have made the magnesium chloride, packed it and put it in the truck, it costs you Re. 1-8 a cwt., before you can deliver into the mill at Bombay. It comes to Rs. 30 a ton. If the distance from the market, as measured in money, is Rs. 30 a ton I do not think you have an advantage in this respect.

Mr. Lalkaka. Where have I stated that?

President.—You say "supposing the Company's lowest cost of production comes to about Rs. 3-2 per cwt., f.o.r. Kharaghoda, plus handling and railway freight and godown charges in Bombay amounting to Re. 1-8 extra it will mean Rs. 4-10 at least in Bombay."

Mr. Lalkaka.—Yes, because we have got the disadvantage of double handling.

President.—My point is this. If it costs you between the factory and the market Re. 1-8 in freight, transport, handling and godown charges, or Rs. 30 a ton, you are not advantageously situated. You are disadvantageously situated, and it is a very heavy charge. That is my point. As regards Ahmedabad it is true that you have an advantage, but as regards Bombay, if this figure of Re. 1-8 is correct, then it is a very serious disadvantage.

Mr. Lalkaka. We have lately tried to minimise this cost.

President.—You would naturally do so, because it is very heavy. But it is very difficult for you to say that you have natural advantages as regards ready access to your market. Perhaps, when we come to asking you in detail about various items of cost, you will tell us about it.

Mr. Lalkaka.—When I am calculating Re. 1-8, I am calculating on delivering the thing at the mill premises, whereas in the case of foreign magnesium chloride they charge these things separately. They only calculate the c.i.f. price.

President.—The information we have had so far is that the people who import magnesium chloride are either selling at a 50 per cent. profit or at a 50 per cent. loss. It is either a squeeze or a slump, and, therefore, it is very difficult to say what charges they are incurring because it seems to be a curious market. However, the point is that, unless you can bring down the charges to be incurred between Kharaghoda and Bombay to something under Rs. 20 a ton, I don't think you have got any advantage at all.

Now let us go on to the other condition laid down by the Fiscal Commission that eventually the industry should be able to dispense with Protection. What have you got to say about that?

Mr. Lalkaka.—That would depend on what would be the prevailing price of the imported article.

President.—That I fully admit. We will come to that when we go more deeply into the figures, but are there any general remarks that you can make?

Mr. Lalkaka.—I have one remark to offer. Supposing we are able to increase our production and compete in foreign markets, that would reduce our cost of production. I am very hopeful of exporting some of our material to England and to America.

President.—If that were a practical proposition at the present moment, I should ask you what conceivable reason there is, why you should come to the Board and ask for Protection? Surely the export of magnesium chloride is not a practical proposition at the present moment because, if it is, we should have to consider whether it was worth while considering the question of Protection or not. You may be able eventually to bring down your cost of production to such an extent that you would not only capture the Indian market, but invade the foreign markets. But I am afraid you have got to go a long way before you can attain that.

Mr. Lalkaka.—If we could increase our sales in the Indian market that would give us a chance of lowering our cost of production.

President.—I don't see that your figures establish that. They establish rather the converse proposition. In the years of lower production the cost goes up, but in the years of highest production the costs do not go down very low.

Mr. Lalkaka.—In those years we had to pay heavily for packing material, etc. We had also to pay very high charges for labour.

President.—You have told us that the magnesium chloride which is made in Germany comes from the Stassfurt salt deposits, and that the deposits there are exceedingly rich in certain very valuable natural salts, e.g., bromides, iodides, potassium chloride and so on. Do these exist in the Kharaghoda salt?

Mr. Lalkaka.—There is just a trace.

President.—I gather that at Stassfurt in order to recover these more valuable salts they have to remove the magnesium chloride, and that it is only a bye-product, so that they have got a natural advantage because, if it is merely stuff which has to be removed in order to get the potassium chloride, bromides and so on, they can afford to sell the magnesium chloride at almost any price, however low.

Mr. Lalkaka.—That is so.

President.—There is also this further point that these deposits are abundant and are very rich and are likely to last for a great many years.

Mr. Lalkaka.—I dare say, yes.

President.—How then do you think the Indian magnesium chloride is going to compete with theirs? There is a very great natural advantage which Germany possesses.

Mr. Lalkaka.—You are considering the time when we should be able to do without Protection?

President.—Yes, at any time in the next 30 and 40 years. At the end of 100 years they might have used up all their salts and then you might have a chance, but that is looking too far ahead?

Mr. Lalkaka.—That is a very difficult question for me to answer. Considering the uses to which it is put in other countries one might hope that in India certain other uses might also be found for it which will increase its consumption.

President.—But surely the world price of magnesium chloride is going to be determined in other countries. The demand for magnesium chloride in India is only a small proportion of the world consumption, and therefore the question of the demand in India is not very important. The real question is, if Germany has such great natural advantages, how do you hope within the next 30 years that the Indian product will be able to hold its own without Protection or assistance of some kind?

Mr. Lalkaka.—I cannot say anything definitely of course.

President.—You see, the onus is upon you. It is for you to show that the conditions are satisfied. If you cannot satisfy us, what are we to do?

Mr. Lalkaka.—The thing is that in the case of increased demand we can have larger output and thus lower the cost of production. Also some improved method may be found which will lower the cost of production.

President.—Of course we cannot get a certainty in any industry. What we look for is a reasonable probability, and if the conditions under which magnesium chloride is produced in Germany are such that they can sell at a very small price, how is it possible for you to do without some sort of assistance?

Mr. Lalkaka.—We may also be able to reduce our cost of production. For instance, epsom salts can be produced; on account of its cost of production we are not doing it at present. It is quite possible we may be able to find out a process under which other salts may be produced which will lower our cost of production.

President.—But should you not have discovered those processes before you came to ask for Protection.

Mr. Lalkaka.—Protection is only going to be given for a short period after which it will stop.

President.—That is not what the Fiscal Commission said. They did not say 'let them try and experiment for 10 years and, if they cannot make good, then withdraw the Protection.' What they laid down was that, unless the Board were satisfied that there was a reasonable probability that eventually the industry would be able to hold its own without Protection, Protection ought not to be given. The reason why I am putting this to you is because this is a real difficulty you have to meet.

Mr. Lalkaka.—With due deference I would submit this whether it would be advantageous for the country to give Protection to the industry which fulfils certain conditions or whether it would be safe to let it die?

President.—A policy of discriminating Protection was what was adopted by the Government of India and the Legislature, and the policy of discriminating Protection means *inter alia* discrimination between those industries which would eventually be able to stand on their own legs without help, and those who would not.

Mr. Lalkaka.—There is also the question whether by granting Protection you are affecting consumers adversely or not.

President.—Surely we must take the points in order. First of all you have got to establish the fact that eventually this industry of making magnesium chloride will be able to do without Protection.

Mr. Lalkaka.—What sort of assurance can I give?

President.—Let me put it to you in this way. Look at the Steel industry. They pointed out the extraordinary abundance and richness of the iron ore some of which are the very best in the world. They also pointed out that their

coal is abundant and within easy reach of the iron ore. At present the cost of production of steel is a good deal higher than in other countries. Nevertheless, the Board were satisfied that eventually, given efficient management, the cost of production would come down to a level where the industry would be quite capable of holding its own. Have you anything to tell us of the chances of producing magnesium chloride at such a cost that you can compete with magnesium chloride produced in Germany?

Mr. Lalkaka.—That is a very difficult proposition to answer. But I can guarantee that after five years my cost of production ought to be such and such, that it would be less than what it is at present.

President.—Are you definitely of opinion yourself that eventually you will be able to dispense with Protection?

Mr. Lalkaka.—I am honestly and confidently of opinion that eventually it would be able to compete with the foreign product without Protection.

President.—Can you tell me in general terms what your reasons are?

Mr. Lalkaka.—I am hopeful of reducing my cost of production and of finding certain improved methods by which we may be able to recover certain other bye-products and thereby reduce further the cost of production.

President.—That is to say, your hopes are mainly founded on the belief that you could bring down your cost?

Mr. Lalkaka.—I believe so.

President.—I will pass on to another point. You may have looked at our Steel Report and the general line we took. We tried to determine what was the fair price to the Indian manufacturer. We tried to ascertain what was the probable price at which imported steel would enter India, and we took the difference between these two prices as the measure of the Protection required. How are we to determine what is the price at which magnesium chloride will be imported? You will admit it is going to be rather difficult. I have got here the average c.i.f. prices supplied to us by the Sizing Materials Company. In April 1923 the price was £4-5 per ton, in June it dropped to £2-17-6, in October it rose again to £3-2-6, it remained between £3 and £4 until April 1924, after that it was between £4 and £5 until it went up to £6 in October.

Mr. Lalkaka.—The quotation I have got only to-day is £5-10.

President.—If the price is liable to fluctuation between the limits of £3 and £6 a ton, it will be a somewhat troublesome business to fix any scheme of duties.

Mr. Lalkaka.—To my mind the stable price which would prevail would be somewhere about Rs. 3-8 per cwt. I have got rupee prices here. I got them from the monthly returns from the Bombay Customs showing the quantity imported.

President.—I have always found that the figures in the Trade Returns for values are not very reliable. However, we shall be very grateful if you would bring any figures you have already given up to date in a supplementary statement.

Mr. Lalkaka.—Yes, I will.* Just looking down these c.i.f. prices, on the whole they appear to be accurate although my idea is that the minimum price from Germany was £1-17, whereas they mention £2-12-6.

President.—We wrote to three firms and we shall no doubt get all the information they can give us. But this is the only answer we have got so far. I don't think that your figures from the Customs returns support such a low figure?

Mr. Lalkaka.—The lowest we had from the Customs was Rs. 2-13-5 for this March. I also got the figure of Rs. 2-13-0 for September last year. That is fairly low.

President.—That would be Rs. 34 a ton.

* Not received.

Mr. Lalkaka.—Yes.

President.—That is a good deal lower than any figure the importing firms have given us. What is the price to-day?

Mr. Lalkaka.—£5-10-0. My letter says that. It is for 20th November c.i.f. Bombay.

President.—You have told us that the price will eventually settle down to what it was before the war, *i.e.*, Rs. 3-8 a cwt. It is quite possible that you are right. But it is difficult for the Board dogmatically to make proposals on an assumption of that kind, and even supposing you are right, it is quite possible still that wide oscillations may continue for a long time. There is a difficulty there because, if the price went up straightway to Rs. 5 a cwt., you would not require Protection, but if the price went below Rs. 3 and settled there, the amount of Protection would not be enough to enable you to compete at all. Therefore it is a complicated problem. To what do you attribute the rise in price during the last six months?

Mr. Lalkaka.—According to my information this trade is in the hands of certain rings, big chemical syndicates. The whole of the magnesium chloride England consumes is imported from Germany. Germany exports 12,000 tons to America according to the report I have got. Probably all other countries are importing from Germany. Germany is also sending to India about 2,000 to 3,000 tons. It is a fairly big trade. Probably for all chemicals—and with them, for the magnesium chloride, there is a syndicate which captures the bulk of the material, and according to the fluctuations of the market they make the price higher or lower.

President.—I quite understand that. But what is the reason why they have put their price up during the last six months?

Mr. Lalkaka.—It is not only magnesium chloride that has gone up but the price of several articles in which Germany specialises has gone up.

President.—Do you attribute it to the stabilizing of the mark in Germany?

Mr. Lalkaka.—The prices of food supplies have gone up and the reason why Germany has been maintaining its market is that the labour is working very hard there.

President.—But that would be a reason for the cost going down.

Mr. Lalkaka.—Prices would be much higher but for the fact that labour is working very hard. I was in Hamburg and Berlin recently.

President.—How long are these conditions likely to last? Do you think that these high prices in Germany are likely to last?

Mr. Lalkaka.—A friend of mine had a report from one of his English agents that the syndicate is boosting up the prices just now and, as soon as the stocks are sold out, the prices are sure to come down.

President.—Does the syndicate own the actual source of raw materials?

Mr. Lalkaka.—No. It is only a commercial syndicate.

President.—It seems doubtful therefore whether prices will settle down at their present level, and you think they will go back to Rs. 3-8?

Mr. Lalkaka.—That is my belief.

President.—Could you just tell us why you think so?

Mr. Lalkaka.—Because, as I said, they have a natural advantage. It comes to them as a bye-product and therefore practically their cost of production is nothing. They have not got to manufacture and there is no expense on fuel or other things. There is only the cost of packing and freight which is very low. So they can always afford to sell at much cheaper rates.

President.—But is there any special reason in your mind for fixing Rs. 3-8 a cwt. as the limit beyond which the price will not fall?

Mr. Lalkaka.—Under normal conditions prices will be maintained at that level. That is what I am inclined to believe. The cost of packing, of course,

may vary. Of course it must cost them something which they are able to judge beforehand.

Mr. Ginwala.—How much do you put for packing?

Mr. Lalkaka.—Our packing costs over Re. 1 per cwt. and their packing is inferior. They are packing in ordinary black iron drums and sometimes the magnesia wholly leaks out from the drums. But the merchants sell them on the invoice weight. I consider that their packing would cost them about 8 annas a cwt.—or half of our cost.

President.—What is their freight?

Mr. Lalkaka.—The freight is 25s. a ton from Hamburg to Bombay. This comes to 1½s. a cwt. and at par value it comes to 14 annas to 15 annas. This is sea freight. I do not know the exact land distance it comes from. Stassfurt is in Saxony and it should come *via* Chemnitz and the distance may be put at about 400 miles. I cannot say what the land freight would be, but for argument's sake I think it may be as much as the sea freight from Hamburg to Bombay.

President.—But not so much if it is transported by boat. A lot of heavy stuff is transported in that way in Germany. You made allowance for sea freight to Bombay and for land freight to get to Hamburg and for the packing and for other expenses they have got to cover, and that is why you fixed it at Rs. 3-8?

Mr. Lalkaka.—Yes.

President.—I have examined your cost of production under the various sub-heads. First of all you give us the cost of bittersns. I have worked out the average for the last three years and that comes to 4 annas a cwt. What exactly is covered by this item? Is it the cost of collecting it?

Mr. Lalkaka.—Yes. Practically that.

President.—Would there be anything in the nature of storage charges?

Mr. Lalkaka.—We have huge reservoirs which can hold 500 tons at a time and there we allow it to settle. There might be some leakage on account of evaporation and we cannot get the exact quantity we store.

President.—You have told us how much you have spent on these bittersns and I took into account what has actually been spent. Is that right?

Mr. Lalkaka.—Yes.

President.—In this particular item do you think 4 annas is all right?

Mr. Lalkaka.—Between 4 annas and 5 annas.

President.—Is there likely to be any saving there?

Mr. Lalkaka.—It is more or less fixed.

President.—If you were going to collect a larger quantity of bittersns, you would have to employ more men.

Mr. Lalkaka.—We pay our labourers at so much per drum. We may be able to make some economy.

President.—If you are paying by piece-work I do not think you are going to get that saving.

Mr. Lalkaka.—We pay at so much per tin. We are bound down by certain conditions prevailing in the salt works. It is the main industry which is done in certain months of the year. They would not allow our bittren wagons to go at those times, and we have to bring them at odd times, and we have to make the most advantageous arrangements possible at that time. We have to pay 1 anna per tin and we might bring it down to ½ anna.

President.—There might be a shortage of labour and then the wages might go up. What is your season for collecting bittersns?

Mr. Lalkaka.—After October they begin to put the pans in order. They commence taking the first brine water some time about the beginning of November. They then allow it to settle down for about eight or ten weeks and then let off the 'mother liquor' somewhere about the middle of January.

That is the first time we are allowed to draw the 'mother liquor.' Then they take fresh brine and allow it to evaporate for about eight weeks more. We are allowed to collect the second crop in March, which means that the season is practically between January and June each year, because in the monsoon the Agurs are impassable and thereafter the old bitters is mixed up with a lot of dirt and washed away.

President.—Supposing you had an output of 4,000 tons, would you then work the whole year round?

Mr. Lalkaka.—We would work the whole year round. 4,000 tons of magnesium chloride would require about 10 to 12 thousand tons of bitters.

President.—Supposing you are producing 1,000 tons, how long will you work?

Mr. Lalkaka.—Only for four months.

President.—The next item is factory charges. What is meant by that?

Mr. Lalkaka.—That means labour supply in the factory mainly.

President.—Would it include stores, and things like oils, spare parts, etc.?

Mr. Lalkaka.—This is comparatively a very small item.

President.—But any expenditure on repairs and maintenance would come under this head?

Mr. Lalkaka.—Yes.

President.—The average of the three years comes to 7 annas per cwt.

Mr. Lalkaka.—Yes.

President.—In the year 1920 it was Re. .39, in 1921 it was Re. .64 and in 1922 it was Re. .34. In 1921, therefore, it was a little high. Do you think that factory charges will be less than 7 annas per cwt.?

Mr. Lalkaka.—They have been less in some years.

President.—They were less in 1917, 1920 and 1922. But may 7 annas be taken as the average labour charges you have incurred?

Mr. Lalkaka.—Yes.

President.—Is this item of factory labour, as in the case of labour for collecting bitters, one which will go down with higher output?

Mr. Lalkaka.—Quite possible.

President.—The next item is fuel. For two out of the three years it was comparatively low. Re. .62 in 1920 and Re. .48 in 1922, whereas in 1921, which was a year of low production, it went up to Re. .89. You show the expenditure on fuel in 1921 at Rs. 15,103. Would that be the cost of the coal or wood you actually used during the year, or the cost of the wood you purchased and brought to the works?

Mr. Lalkaka.—What I actually used.

President.—That makes it difficult to understand why it has been so high.

Mr. Lalkaka.—Because of the fluctuating rates for firewood. In one year the price is high and in another it is low.

President.—Will you let us have the prices for 1920, 1921 and 1922, the quantity of coal or wood purchased and the prices paid; and also the quantity of coal or fuel used, and the current prices for coal and wood?

Mr. Lalkaka.—Yes.*

President.—The average for the three years is about 10 annas a cwt., but in two out of three it was less than that.

Mr. Lalkaka.—Yes.

President.—There again I should like to know to what extent you think that item can be reduced.

Mr. Lalkaka.—We are always trying to economise. There was economy in fuel in 1922, due to an improved flue we introduced.

President.—It would be useful if you would think over it and let us know what you think should be taken as a normal figure for expenditure under each head per cwt., preferably on the basis that you are getting an output of not less than 3,000 tons

Mr. Lalkaka.—I will let you have the information.*

President.—The next two items "Transport and handling charges" go closely together. I take it these mean railway charges on stores, coal, fuel and so on, and not the railway charges on your finished product?

Mr. Lalkaka.—It does.

President.—If it includes freight to Ahmedabad and Bombay on magnesium chloride, that mixes up things horribly. Your works cost should end when you put your stuff on the railway wagons. If you mix up your works costs without distinguishing them from the freight on what is going out, it leads to great difficulty. Have you included that?

Mr. Lalkaka.—Yes.

President.—Up to what point?

Mr. Lalkaka.—In the case of up-country mills, *i.e.*, those situated outside of Bombay and Ahmedabad, whoever sends for the goods pays the railway freight. In the case of Ahmedabad and Bombay usually we pay it.

President. For the last three years you will have to separate any railway charges incurred on sending the magnesium chloride to Ahmedabad and Bombay and similarly if there are any transport and handling charges. If you have included handling charges at Ahmedabad and Bombay, they should be separated. If, on the average of the three years, these items together—railway charges and transport and handling—come to only 9 annas a cwt. and if that includes both transport and handling charges, I feel . . .

Mr. Lalkaka. On second thought I am inclined to believe that it would not include charges on fuel because that would go to 'fuel charges.' Then again, Bombay has during these three years taken absolutely nothing, so practically all the charges were incurred on sending the stuff to Ahmedabad which is a very small distance.

President.—No expenditure that is incurred on finished magnesium chloride after it has left the works is part of the works costs. It is very important that we should know what these charges are, but they are not parts of the works costs.

Mr. Lalkaka.—I understand.†

President.—After that comes some miscellaneous charges—sundries, rents and taxes, etc. Even taken all together, they are not very important. The whole four come to about 3 annas a cwt. on the average of four years. Then there is an item which is called "Establishments, allowances, etc." The fluctuations are most extraordinary. They are Re. 49 in 1918, Re. 16 in 1919, Re. 18 in 1920, Re. 71 in 1921 and Re. 24 in 1922. The only point about that is that one does not quite understand why it should fluctuate in such a violent way. What do these mean?

Mr. Lalkaka.—Practically it means the office in Bombay, the office in Ahmedabad and the Manager who used to be maintained at Kharaghoda.

President.—These are rather of the nature of what we usually call 'over-head charges.'

Mr. Lalkaka.—Yes.

President.—Is there any particular explanation for the fluctuation?

Mr. Lalkaka.—In that particular year there might have been one or two extra men employed, and further the production of that particular year, *viz.*, 1921, was the lowest on record which added considerably to the cost under this item.

* Statement VI, Schedule B.

† See Statement VI.

President.—Then there is this item of “Drums and packing.” What do you make the drums out of?

Mr. Lalkaka.—Galvanised sheets. We buy sheets and make the drums on the spot either on contract or departmentally.

President.—How much does one of these drums contain?

Mr. Lalkaka.—About 7 cwts.

President.—How much does each drum cost?

Mr. Lalkaka.—Somewhere between Rs. 7-4 and Rs. 7-8.

President.—And you say that your magnesium chloride is better packed than the imported stuff?

Mr. Lalkaka.—I should say so, and anybody would agree to it.

President.—I take it that you have no hope of being able to reduce this particular item?

Mr. Lalkaka.—That depends on the cost of the sheets. If the price of sheets becomes cheap per it is quite possible we may be able to reduce the cost of drums by about 4 annas a cwt.

President.—What do the sheets cost?

Mr. Lalkaka.—Recently I covered steel sheets in London. They cost me somewhere about Rs. 17 a cwt. in Bombay. Taking 4 sheets to a cwt. even roughly the cost of the sheets would come to—one drum weighs about 24 lbs.—about Rs. 4-8.

President.—I think that would be sufficient for our purposes. Supposing it is about Re. 1 per cwt. how many annas and pies is the cost of the sheet, and how many annas and pies is the cost of making the drum?

Mr. Lalkaka.—I will let you have the information.*

President.—Take this question of freight to Bombay or Ahmedabad. What is the freight from the works first to Ahmedabad and then to Bombay?

Mr. Lalkaka.—The Railway Company have given us special freight rates from Kharaghoda to Bombay; it used to be about 12 annas per cwt. and they have still further reduced it which now works out 2 annas cheaper.

President.—That would be about 10 annas a cwt. What would be the freight to Ahmedabad?

Mr. Lalkaka.—It is a relatively bigger freight rate, about 5 annas a cwt., looking to the distance from Kharaghoda to Bombay which is 375 miles and that from Kharaghoda to Ahmedabad which is 63 miles only.

President.—What would be the railway freight on imported magnesium chloride from Bombay to Ahmedabad?

Mr. Lalkaka.—Somewhere near Re. 1.

President.—Usually when you send your magnesium chloride to Bombay do you send it direct to the mill or to your or your agent's godown?

Mr. Lalkaka.—In a majority of cases it goes to the agent's godown and from there again to the mill.

President.—What does it cost you to unload it at the railway station and take it to the godown?

Mr. Lalkaka.—It fluctuates. The statement at page 41 of the printed evidence will give you a fair idea. This statement was prepared by our selling agents of the sales from December 1923 up to March 1924. They sold 282 cwts. and the railway freight and other handling charges up to godown and for mills delivery came to about Rs. 368. This is most extraordinary, but then this was double handling, taking from the station to the godown and from the godown to the mill. It works out at Re. 1-4 per cwt. from which about 12 annas represents the freight as then prevailing and about 8 annas per cwt. extra for double handling from railway to godown and thence to mills.

President.—What do you estimate as being what it cost you per cwt. first of all to get it from the railway station to godown, and then from godown to the mill?

Mr. Lalkaka.—When a wagon load goes the whole thing has to be removed. We send it down in wagon loads to the godown but when supplying to the mill it is not always wagon loads, so the cost of handling becomes dearer on a smaller quantity.

President.—Tell us what it costs you when a whole wagon load goes down.

Mr. Lalkaka.—I can supply you these figures later.*

President.—It is very important because Re. 1-8 a cwt. requires a good deal of justification. I must say that Rs. 15 a ton is rather a high freight rate. What is your distance from Bombay?

Mr. Lalkaka.—About 375 miles.

President.—The next item you have given is "Selling expenses, commission, etc." The average for the last three years is about 11½ annas a cwt. which is about 14 per cent. on the works costs, plus freight and handling charges to Bombay. It strikes me as very high. Why is it so high as that?

Mr. Lalkaka.—It is not the cost of Bombay sales alone, there may be other items.

President.—It may be Bombay or Ahmedabad, I don't care where it is. It is a very high charge. Why is it? Do you sell to your selling agents, or do they charge commissions on sales?

Mr. Lalkaka.—In Bombay the arrangement is that the selling agents get a nett commission on the sale price. If you take it at the cost price this will naturally work out higher.

President.—That implies that you have been selling at a profit. Who are the agents?

Mr. Lalkaka.—Messrs. H. M. Mehta and Company of 123, Esplanade Road, Fort, Bombay.

President.—It seems to me that 10 per cent. is a very high commission.

Mr. Lalkaka.—From last year we have reduced it to 5 per cent. But there is a certain advantage.

President.—What is the advantage?

Mr. Lalkaka.—They make payments to us at the end of the month no matter when they realise the amount.

President.—No doubt that would to a certain extent save you from interest charges.

Mr. Lalkaka.—Moreover they are millowners themselves. That is another advantage.

President.—Your block account is Rs. 1,43,000 only. Can you get your full production on that?

Mr. Lalkaka.—Yes.

President.—It is a very low capital account. You have taken for your depreciation Rs. 11,000 a year. Taking it very roughly the rate we have applied is 8½ per cent.

Mr. Lalkaka.—On a motor wagon we allow as much as 25 per cent. and on certain other things we charge 12½ per cent. or less.

President.—Will you send us a statement showing the depreciation on various things?

Mr. Lalkaka.—Yes.†

President.—You have told us that about Rs. 4-8 a ton is the price you should get for a cwt. How did you arrive at that figure?

* Statement VI.

† Statement VI, Schedule A.

Mr. Lalkaka.—I calculated roughly Re. 1-2 for the manufacturing costs at Kharaghoda, including the cost of collection; 'Overhead', including interest charges, establishment and supervision, comes to 12 annas a cwt. and I have calculated Re. 1-4 for railway freight and handling charges.

President.—It seems to me that your Head office charges and agency charges are relatively a bit too high. As regards Re. 1-4 for railway freight, etc., that is reasonable.

Mr. Lalkaka.—I allowed 8 annas as my reasonable margin of profit.

President.—I think if you got 2 annas it would be reasonably fair, and you would get 8 per cent. on the block account. I calculated on an output of 4,000 tons.

Mr. Lalkaka.—But I calculated only on an output of 1,000 tons.

President.—That is all right then. It would come to 8 annas. You have told us that Rs. 4-8 is a fair selling price, and if you took the 1,000 tons output in arriving at that figure, you had better explain to us. In arriving at the figure of 8 annas for manufacturing profits you have gone on the basis that you are going to produce 1,000 tons. So your cost was perhaps calculated on the basis of 1,000 tons output?

Mr. Lalkaka.—Yes.

President.—In that case how would your Works Costs go down on the 4,000 tons output?

Mr. Lalkaka.—That will be hypothetical.

President.—But it might affect our whole view of the case.

Mr. Lalkaka.—Supposing 4,000 tons were manufactured, the costs would not come down to one-fourth the original costs.

President.—Clearly not, and that is the reason why we want you to tell us to what extent it may go down. I think it will be useful if you take item by item of the Works Costs and tell us what you expect would go down and why. For instance this Re. 1-2—your manufacturing costs—is very much below any figure you have ever been able to reach. Will you tell us how you got that figure on a 1,000 ton output?

Mr. Lalkaka.—What is your figure?

President.—I got Rs. 2-1 which is nearly a rupee above yours. That does not include royalty or income-tax, but it includes 'establishment.'

Mr. Lalkaka.—In my case the establishment is taken separate, which comes under overhead charges.

President.—If establishment is taken away that would not be very far out. In your original representation you said something about unhealthy competition from Germany and selling below cost of production. What did you mean?

Mr. Lalkaka.—The costs were very low on account of the depreciated exchange.

President.—That was at the time you were writing your original representation. This factor has now disappeared.

Mr. Lalkaka.—Yes.

President.—Supposing that the imported magnesium chloride is selling in Bombay at Rs. 5 a cwt., what price would you expect to get for your magnesium chloride?

Mr. Lalkaka.—On principle we prefer to keep our price lower, although our product is not inferior, in order to give no inducement to the consumer to import from outside.

President.—That is not the point. Supposing the price of imported magnesium chloride is Rs. 5, what would you charge for your product?

Mr. Lalkaka.—I would keep it lower by about 8 annas.

President.—Mr. Stones who came on behalf of the Millowners' Association told us what the mills would do if you did not lower it. Is that the way in which you usually regulate the prices?

Mr. Lalkaka.—More or less.

President.—At about 8 annas below the import price?

Mr. Lalkaka.—Sometimes it is much lower than that because our customers would not buy it and distinctly say that, if there is not much difference in the price, they are not going to buy from us.

President.—There is nothing out of the way in it. The Millowners' Association told us that there was no objection to Protection being given provided there was some guarantee that the magnesium chloride produced in India was equal in colour and refinement to the imported stuff.

Mr. Lalkaka.—I admit there is a difference in colour. But as regards quality I do not admit there is any difference. I have never had a single complaint from any millowner of that sort. That in itself is proof of the quality being quite as good and serviceable.

President.—As regards colour I think you have told us in the written representation that this grey colour always appears in crystallization, and hitherto you have not succeeded in removing it.

Mr. Lalkaka.—We were very near getting at the problem when we had to shut down the works.

President.—You hope to be able to get rid of the colour defect, but you have not succeeded in that so far?

Mr. Lalkaka.—We have not got a chance.

President.—Mr. Stones said that he went into the matter deeply, and was of opinion that the colour made no practical difference and had no effect on the cloth. For that reason he was personally satisfied that it was as good as the imported product, although there were some members of the Association who held a different view. He said that about 2/5ths of them held distinctly that the Indian product was not so good. What would you put the annual consumption at Ahmedabad at?

Mr. Lalkaka.—According to the latest report I find that there are 145,000 looms in the whole of India. When I worked out the figures there were 135,000 looms, of which 64,000 were in Bombay, about 25,000 were in Ahmedabad and the rest in other parts of India. Ahmedabad consumes a large proportion. We calculated at the rate of 5 tons per annum for every 100 looms. Bombay consumes about half that amount, i.e., at the rate of about 2½ tons per 100 looms per annum.

President.—Mr. Stones said that Bombay consumed four times as much per loom as Ahmedabad.

Mr. Lalkaka.—My experience is different. I calculated the consumption of Ahmedabad at about 1,250 tons.

President.—Before you can sell in Bombay at all you ought to be able to capture the market in Ahmedabad, because you have an advantage of Re. 1-8 there, when compared to Bombay. Are millowners in Ahmedabad purchasing the imported magnesium chloride?

Mr. Lalkaka.—I have been out of India for 6½ months and just now I am not in a position to say. But usually many millowners are interested in the purchase of stores. They have got their relations at Home and prefer to send orders out. I am not making allegations, but that is one of the factors.

President.—But if that is one of your difficulties, I do not see why the tax-payer should be made to pay for it.

Mr. Lalkaka.—Perhaps half the quantity is sold in Ahmedabad and the rest in the whole of India. As a matter of fact we get a lower price in Bombay than Ahmedabad because Bombay is the first port of entry.

President.—You ought to get Re. 1-8 more in Ahmedabad.

Mr. Lalkaka.—There is a difference of about 8 to 12 annas per cwt. between Ahmedabad and Bombay prices.

President.—I am thinking of what you actually received at the Works. You received less in Bombay, but there is not only the railway freight between Bombay and Ahmedabad, but also the difference between the freights you pay to Bombay and Ahmedabad respectively. There is just one other thing. I was comparing the figures given by the Sizing Materials Company and, according to the figures they have given, there is considerable difference between the c.i.f. price and the market price, which the existing duty would not fully explain. Can you give us any sort of idea of the charges which the merchants who import have got to incur?

Mr. Lalkaka.—Usually what happens in a majority of cases in Bombay is that the merchants do not stock the goods because it requires a big godown and it is also liable to leakage. They take indents from the mills and get the goods direct to the mills who put them in their own godown. The Sizing Materials Company, of course, are the biggest stockists in Bombay and naturally they realize better prices than anybody else.*

President.—If you are correct in saying that the drums are broken and the goods are damaged, they would be likely to realize a lower price?

Mr. Lalkaka.—But they sell at the invoice rate and the mills are the sufferers.

President.—What I was trying to get at is this. In August 1924 the difference was Rs. 38 between the market price and the c.i.f. price. Do you think that the merchant is, so to speak, a sort of commission agent for the mills?

Mr. Lalkaka.—There are big stockists who, of course, order on their own account and sell on their own account, though in a majority of cases the indentors do so on commission basis only.

President.—Does the actual price paid in Bombay vary enormously according to the local supplies in Bombay quite independently of the c.i.f. price?

Mr. Lalkaka.—By 'local supplies' you should not include the Kharaghoda stuff. It is only foreign stuff.

President.—Quite right.

Mr. Ginwala.—At page 48 you have given your cost of production. That is actually taken from your books of accounts, is it not? And it is intended to show the financial position of the Company?

Mr. Lalkaka.—Yes.

Mr. Ginwala.—From your figures you do not seem to have done so badly. This depreciation that you show here you have actually written off, have you not?

Mr. Lalkaka.—Yes.

Mr. Ginwala.—According to that, it comes to Rs. 1,18,845. That is the total.

Mr. Lalkaka.—Yes.

Mr. Ginwala.—So that your block now remains at Rs. 23,000?

Mr. Lalkaka.—Yes.

Mr. Ginwala.—I do not understand the meaning of your answer to Question 65.

Mr. Lalkaka.—The explanation for this is that, according to our agreement with the Government, we have to share profits. Government themselves have in the agreement agreed to the depreciation being calculated on

* c.i.f. prices given are in pounds sterling, whereas the market prices are quoted in rupees, and a certain variation due to different circumstances of imports and sales as well as on account of exchange fluctuations must be allowed.

the total block account without any deduction, for purposes of division of profits.

Mr. Ginwala.—But curiously enough Rs. 23,000 and Rs. 1,18,000 that I have given makes exactly Rs. 1,41,000. Your block value is Rs. 1,41,000, out of which you have written off Rs. 1,18,000: the difference between the two is Rs. 23,000. That is the value of your block account, whereas you say the total depreciation accumulated amounts to Rs. 23,000.

Mr. Lalkaka.—This Rs. 23,000 represents the depreciation accumulated after the year 1922, i.e., since the coming into force of the new Government Agent.

Mr. Ginwala.—Your block value now remains at Rs. 23,000?

Mr. Lalkaka.—This requires some explaining. Since 1922 the total depreciation comes to Rs. 23,000 only, whereas the previously accumulated figure of Rs. 1,18,000 applies to the period of the old Agent when only a fixed royalty of Re. 1-8 a cwt. was payable to Government.

Mr. Ginwala.—You say the Government of Bombay share in the profits.

Mr. Lalkaka.—Formerly we used to pay a fixed royalty, now it is payable on a sliding scale according to the fluctuations of the market.

Mr. Ginwala.—You have paid in 6 years income-tax amounting to Rs. 68,429 on an amount of profit of about Rs. 3,83,529. Will you give me the figures on which income-tax was paid?

Mr. Lalkaka.—Yes (shows him the figures).

Mr. Ginwala.—I want figures on which you actually paid income-tax.

Mr. Lalkaka.—This was the actual profit that we made (shows the figure).

Mr. Ginwala.—I want the nett total profits made by your company.

Mr. Lalkaka.—This is the actual nett profit that has accrued to us.

Mr. Ginwala.—Is this the amount on which you paid income-tax? You have written off depreciation in proportion to the profits you have made?

Mr. Lalkaka.—The income-tax people allow depreciation according to the fixed rates they have got.

Mr. Ginwala.—Then your profit should be smaller than it ought to be if you charged depreciation under income-tax rates.

President.—I think it is essential, when the Board are considering the question of Protection, that they should know what profits you have been making.

Mr. Ginwala.—Will you send me the nett profits according to you and you can show how you have arrived at your nett profits, how much you have taken for depreciation, etc. Then you will show the actual income-tax that you have paid. What I want to know is the actual amount of depreciation which is allowed you by the income-tax authorities, not what you have debited yourselves with. Then I want to see what is the amount of profit on which you paid income-tax. I want the figures from 1916.

Mr. Lalkaka.—I will send you the information.*

Mr. Ginwala.—The Government of Bombay have made out of this business a profit of about Rs. 2,49,000. Have you applied to the Government of Bombay to help you in any way?

Mr. Lalkaka.—We have not. On what ground?

Mr. Ginwala.—On the ground that they have made so much profit.

Mr. Lalkaka.—It never occurred to us, but it is not likely that they would entertain the proposition.

Mr. Ginwala.—Very likely not. But if you were not paying royalty in that way you would not be badly off. What happens to the bitterns?

Mr. Lalkaka.—They would go to waste.

Mr. Ginwala.—So you see the Government of Bombay have got Rs. 2,49,000 out of their waste products.

Mr. Lalkaka.—For the future the arrangement is that only when we earn they will share profits.

Mr. Ginwala.—Out of this new arrangement how much do the Government of India get?

Mr. Lalkaka.—Exactly half.

Mr. Ginwala.—But the Government of India has not applied, as a partner, for Protection! The point is this, why should the Government of India protect the Government of Bombay?

Mr. Lalkaka.—It is not helping the Government of Bombay. All the profits have gone to the Central Government. Our agreement is with the Secretary of State and the profits go to the Government of India.

Mr. Ginwala.—Are you quite sure?

Mr. Lalkaka.—I am speaking on the authority of the Director of Industries, Bombay, as well as on that of the local officers. I know it for a fact.

Mr. Ginwala.—What I wanted to know was, whether the Government of India work the salt departmentally.

Mr. Lalkaka.—Yes.

Mr. Ginwala.—In that case the Government of India itself is applying for Protection, if they are partners with you and take half the profits. You can ask your senior partners to help you directly. Have you closed your Works?

Mr. Lalkaka.—We have just re-commenced working. We have exhausted our old stocks and have begun manufacturing afresh.

President.—Could you just tell us what the stock was when you closed manufacture and how much of it have you sold after then?

Mr. Lalkaka.—At the beginning of this year we had somewhere about 2,000 drums. That would be 6 to 7 hundred tons.

President.—Is that what you sold within the last six or seven months?

Mr. Lalkaka.—Since January practically.

Mr. Ginwala.—Is this the agreement according to which you pay your royalty on profits, or do you pay a fixed royalty?

Mr. Lalkaka.—This is the latest agreement.

Mr. Ginwala.—Are the profits calculated on the same basis as you have calculated here--on page 48?

Mr. Lalkaka.—The arrangement is contained in clause 3 (a) of the agreement at page 29 of the printed evidence. It runs as follows: "The said royalty will be payable after allowing to the firm as its own exclusive property ten per cent. of the actual total expenditure incurred without counting the interest or the income-tax charges for the period. After deducting this item from the total gross profits of the year, the surplus, if any, shall be divided into two equal parts and given to the Government as royalty and to the firm as their own respective shares."

Mr. Ginwala.—It says 10 per cent. of the gross expenditure? What do you mean by this?

Mr. Lalkaka.—Interest and income-tax are out-of-pocket expenditure to us, and in lieu of that we get 10 per cent. on the gross expenditure.

Mr. Ginwala.—I think it means first of all you should deduct from the total gross profits your 10 per cent. on the total gross expenditure. The rest is divided equally between you and the Government.

Mr. Lalkaka.—Yes.

Mr. Ginwala.—It really means that you get a return of 10 per cent.

Mr. Lalkaka.—We may have spent 7 per cent. on interest and we may have paid income-tax. So far as the partners ultimately are concerned, it does not come to that.

Mr. Kale.—You say that you work only for four months in the year. I want to know what happens to your labour in the remaining parts of the year?

Mr. Lalkaka.—When there is no work there is no labour.

Mr. Kale.—I mean the factory labour, skilled labour?

Mr. Lalkaka.—Factory labour has got to be dismantled. Of course a certain number has to be kept up and the rest dismantled.

Mr. Kale.—That is a disadvantage?

Mr. Lalkaka.—It is. But we cannot afford to have all the labour when there is no work.

Mr. Kale.—If you had your factory going all the year round then it will be all right?

Mr. Lalkaka.—Yes.

Mr. Kale.—The price you quote for Bombay includes freight and handling charges?

Mr. Lalkaka.—We give them from mill delivery.

Mr. Kale.—You do this to keep your customers. In the case of other manufactures it is not the practice. Simply because you have to compete with the foreign article you have got to make this concession?

Mr. Lalkaka.—Yes.

President.—Let us return to the fundamental point again. You think that the import price will be about Rs. 3-8, don't you?

Mr. Lalkaka.—Yes, between Rs. 3 and Rs. 3-8.

President.—You think that Rs. 4-8 will be what it would cost you. You must add 8 annas to that, if you get 8 annas less than the import price in Bombay.

Mr. Lalkaka.—This cannot be true always. There will be fluctuations according to circumstances prevailing at each time. In a general way we think that our prices are kept lower by 8 annas. Sometimes we may get Re. 1 lower.

President.—In that case supposing you took the import price at Rs. 3-4, in order that you may get Rs. 4-8 you must raise the import price to Rs. 5-4, and this means Rs. 2 duty. That is a pretty heavy duty.

Mr. Lalkaka.—*Under the circumstances people would perhaps think that Re. 1-8 is sufficiently high and we may not have to raise the price by 8 annas in order to serve as a sop.

President.—But would you get it? If the prejudice is so strong in a place like Bombay where the great majority of millowners are Indians, you will have to presume that it will take some time to overtake it. You are about Re. 1 worse than the import price. How do you expect to bring your cost of production down so that you can sell at Rs. 3-8 without loss. That is the fundamental question. I should like you to bear that in mind when you give us the figures we have asked for about the cost of production, how in the long run you are to get your cost down to the point when you can be sure even of selling down to Rs. 3-4 and still not lose.

Mr. Lalkaka.—It cuts both ways. In Ahmedabad we realize a higher price than in Bombay.

* There is some confusion. If the import price be Rs. 3-4 the price d/d up to mill premises with the indenter's profit or commission, etc., would bring it to Rs. 3-12, say, in which case the duty will not have to be Rs. 2 more, but only Re. 1-8 to bring it up to the level of the Kharaghoda prices as calculated above.

President.—By all means take that into account. If in order to sell your full output you have to sell about two-thirds in Bombay and one-third in Ahmedabad, then in that case you have to take a sort of weighted average, but it is very important that you should explain yourself fully on the subject because you have a difficulty to meet. It is not clear at present that eventually you can do without Protection, therefore you ought to satisfy us.

Mr. Ginwala.—These are the figures that you have given from 1916 to 1921. In 1921 there was a loss of Rs. 9,600.

Mr. Lalkaka.—Yes.

Mr. Ginwala.—The total nett profit according to the figures you have given is Rs. 3,83,529. In order to arrive at the real profit from the income-tax point of view we shall have to add to that the total amount of depreciation, which comes to Rs. 1,18,000 according to your statement, and from the total of the two we shall have to deduct the actual depreciation to which you would be entitled under the Income-tax Act. That will give us the actual profits that you made.

Mr. Lalkaka.—Yes, that is it.

Mr. Ginwala.—Perhaps you would send us from the income-tax returns the amount the income-tax people have charged income-tax on.

Mr. Lalkaka.—Yes.*

Mr. Kale.—Were you able to make the profits to which reference has been made on account of the high price which ruled at that period?

Mr. Lalkaka.—Yes.

Mr. Kale.—Is that the only explanation that you can give?

Mr. Lalkaka.—We have also sold about 50 per cent. cheaper than the imported stuff.

Mr. Kale.—But that was because the imported price had gone up very high? The condition of the industry should not be judged by the profits you made during those years?

Mr. Lalkaka.—Quite so.

Mr. Kale.—I gather that you were able to start manufacture of magnesium chloride comparatively very soon after the war began?

Mr. Lalkaka.—Almost immediately after the war started.

Mr. Kale.—Therefore, if an emergency arose, the same thing might happen again?

Mr. Lalkaka.—Yes.

Mr. Kale.—And capitalists would put in money into the business because they have found that in those years the profits earned amounted to four times the capital?

Mr. Lalkaka.—Yes.

Mr. Kale.—Why should the tax-payer or anybody else who is not personally interested contribute to keep this industry going?

Mr. Lalkaka.—But should we be justified in keeping the concern running at a continual loss?

President.—Protection means that the loss is still there but you transfer it to some one else. . . .

Mr. Lalkaka.—That would apply to the Steel industry also.

President.—Far from it.

Mr. Lalkaka.—Have they not made profits?

President.—That is not the point. In the case of emergency, as in the case of war, we can again improvise magnesium Works as was done on a previous occasion. You cannot improvise steel Works.

Not sent, but the amount has been calculated from the figures already shown.

Mr. Ginwala.—In addition to the profits made you have written down your block value to Rs. 23,000. You would not be entitled to write off as much as Rs. 1,18,000 depreciation. Probably it won't exceed Rs. 60,000. If you deduct Rs. 60,000

President.—You have got to consider that point. The shareholders have got their capital back again, and if there is any war we can again improvise magnesium chloride Works as was done.

Mr. Lalkaka.—If there is no competition from indigenous products, what prevents the exporter from raising his price to the detriment of the local consumer?

President.—Does not Germany know that once they put the price up you or anybody else would start to manufacture magnesium chloride here?

Mr. Lalkaka.—Yes.

President.—Then is it possible for them to raise the price? I would like you to think it over, it is a real point.

Witness No. 2.

BOMBAY CHAMBER OF COMMERCE.

WRITTEN.

Written statement, dated the 11th September 1924.

I am directed to refer to your letter No. 419, dated the 28th May 1924 forwarding a copy of the application for protection from the magnesium chloride industry which has been referred to the Board for enquiry and to the subsequent press communiqué attached to the official reprint of the evidence tendered by the Pioneer Magnesia Works in support of their application.

2. My Committee understand that the applicants consider that a protective duty of 200 per cent. *ad valorem* will be necessary if they are to compete successfully with the German product and my Committee desire to register an emphatic protest against the precedent which is sought to be established thereby as they can only regard the creation of an industry upon such terms as fundamentally unsound even if, as is certainly not the case in the present instance, the conditions laid down by the Fiscal Commission are satisfied in other respects. Moreover, after careful consideration of the position disclosed in the evidence tendered before the Board and as the result of enquiries which they have made from local consumers, my Committee have reason to believe that the main difficulty with which the industry is confronted is the more uniform and superior quality of the imported article and that the Indian product has actually enjoyed a very considerable advantage in the way of price, at any rate so far as the Bombay market is concerned.

3. Nor are my Committee prepared altogether to accept the applicants' contention in regard to the incidence of the proposed protective duty on the mill industry as in normal times of competition the difference between a profit and a loss in a large manufacturing concern very often turns upon the attention paid to a number of small items, the cost of each of which may represent only an infinitesimal charge per unit of production. It is dangerous therefore to ignore the results of the taxation of such small items, particularly in the case of the mill industry which already suffers somewhat severely in that respect, and on these grounds alone my Committee consider that the applicants have failed to substantiate their claim for protection though the Chamber's main objections to the proposal are ones of principle and policy and are sufficiently indicated in the previous paragraph.

4. I am to say that my Committee do not desire to depute a representative to appear before the Board.

Witness No. 3

THE MILLOWNERS' ASSOCIATION, BOMBAY.

A.—WRITTEN.

Statement I.—Written statement, dated the 15th September 1924.

I am directed to acknowledge the receipt of your letter No. 5.T., dated the 29th July 1924, in which it is stated that the Tariff Board will be glad to receive the views of my Association on the claim for protection put forward by the Magnesium Chloride Industry.

At the outset it should be stated that my Committee while in favour of fostering the industries of the country, are for this very reason opposed, generally speaking to the imposition of import duties on the raw materials used in indigenous industries.

In the particular case of the Magnesium Chloride Industry my Committee, after mature consideration, are inclined to support the plea made for protection, subject to the conditions outlined in the subsequent paragraphs of this letter. My Committee are aware that they are by their action agreeing to what is virtually a tax on one of the raw materials used in the Cotton Textile Industry, but the increase in the cost per lb. of cloth would be so small that in this instance they are prepared to bear this extra burden for a limited number of years in order that the Magnesium Chloride Industry of the country may place itself in a position to compete favourably with its foreign competitors, and eventually supply the textile trade of India with the whole of its requirements without extraneous aid of this kind.

My Committee, however, feel that the Government of India are placing themselves in an anomalous position by investing the claims of any industry for protection before taking steps to remove the Cotton Excise Duty which is an admittedly unjust tax upon the production of the greatest indigenous industry in India. Though as previously stated an import duty on magnesium chloride would in itself not raise the cost of cloth production to any great extent the cumulative effect of a number of similar protective duties will make the abolition of the cotton excise duty a matter of paramount importance.

2. With reference to the specific questions contained in your letter I am to say that my Committee cannot agree with the claim of the Pioneer Magnesia Works for the imposition of a 200 per cent. protective duty. Their calculation of the import duty necessary appears to have been based upon the temporary and phenomenally low prices which prevailed during the earlier part of this year. Such prices are most unlikely in the future, if to-day's price can be taken as a criterion, and my Committee feel that the Pioneer Works themselves will be willing to admit that a duty of 50 per cent. would be quite sufficient to enable them to compete favourably in normal times. My Committee would, for reasons previously stated, be agreeable to the imposition of a customs duty of 50 per cent. on the imported product for a period not exceeding five years, to be thereafter gradually reduced so that at the end of say 10 years the duty would not be higher than that of the general import tariff. At the same time they feel, that if a protective duty is imposed purchases should be guaranteed a certain standard of quality in order to ensure that they would not be disadvantaged owing to their being compelled to use the Indian product.

The chief essentials in this respect, as far as the textile industry is concerned are that "free iron" should be entirely absent, and that the colour, and standard of refinement should be equal to that of the imported article.

3. With reference to the proportion of total works costs which the cost of magnesium chloride represents in cotton manufacture enquiries from several mills show that over a period of twelve months it works out at about 05-06 per cent.

The increase in cost per 1,000 lbs. of cloth if a 200 per cent. duty was imposed, basing calculations on the average price of magnesium chloride for the past 12 months, would be between Rs. 1-4-0 and Rs. 1-12-0 in the case of Bombay City and Island Mills. In Ahmedabad mills the increase in cost would be considerably more owing to the higher percentage of size usually employed. The increase in cost per 1,000 yards of cloth would fluctuate according to the fineness of the cloth but on the rough basis of five yards of cloth per lb. would be between four and six annas.

4. Opinions vary considerably as to whether the quality of the Indian product is satisfactory, but it is generally agreed that it is not usually equal in colour or in degree of refinement to the imported article. Free iron is not usually found. The majority of mill managers have hitherto preferred the imported German product but this is probably due to its superior colour for sizing purposes. Chemical analysis does not show the Indian product to be greatly inferior.

5. Mr. F. Stones, O.B.E. of Messrs. E. D. Sassoon and Co., Ltd., has been requested to give oral evidence on behalf of the Association before your Board during their inquiries in Bombay.



THE MILLOWNERS' ASSOCIATION, BOMBAY.

B.—ORAL.

Oral evidence of Mr. F. STONES, O.B.E., recorded at Bombay, on Thursday, the 18th September 1924.

President.—I should like to say that we are very much indebted to the Millowners' Association for putting their views so definitely on record. It makes it much easier for us. Of course in the ordinary course it would have been usual to get the oral evidence of the applicants for protection before asking for other people's opinion, but in this case it was not possible to do so because the Manager of the Pioneer Magnesia Works is in Europe and, therefore, to avoid delay, we had to write to the Association at once, basing our questions on the written statement. I gather that the opinion of the Association is that this is a case in which the manufacturer of Magnesium Chloride might be protected, provided certain conditions are fulfilled.

Mr. Stones.—That is our feeling. Magnesium Chloride comes to roughly about 1 in 300 of the total stores in the mill. As a matter of fact 40 per cent. duty would not make very much difference to us in the aggregate, but it should be remembered we are already taxed so much on other stores in addition to the excise duty on piece-goods that a few more straws on our back would be enough to break it.

President.—You mean that this is negligible in itself but, if there were gradual accumulation of similar duties, the total result would not be negligible?

Mr. Stones.—That is right. We already have the excise duty on the top of that. With the excise duty going, there will be ample room for all the industries asking for protection. Of course, in the case of Magnesium Chloride we agree that the Pioneer Works are terribly handicapped.

President.—On this point you just referred to the cumulative effect of a number of similar protective duties, so far as the Association are aware, is it likely that there will be similar applications for protection to the manufacture of stores of the various kinds used in the cotton industry?

Mr. Stones.—I should anticipate so. I should say, for the manufacture of leather picking bands, the leather industry particularly might apply with equal reason as compared with Magnesium Company. The Persian roller skin in England, which is the ideal skin for spinning, is nothing more or less than the Madras skin. It is sent half cured to be changed into roller skin so that the raw products go from India. The same is the case with buffalo hides for pickers.

Mr. Ginwala.—What is the duty on these articles?

Mr. Stones.—They range from $2\frac{1}{2}$ to 15 per cent. These are cases in point and they form a very large bulk of the stores in a mill, much larger than Magnesium Chloride.

President.—I take it that some of the articles you have mentioned are imported as machinery, and are subject only to $2\frac{1}{2}$ per cent. duty.

Mr. Stones.—One or two of them, but most of them are leather goods and come in under 15 per cent. duty. You will probably have an application for protection for glauber salt and epsom salts which are made in small quantities.

President.—So far as you know, are there any firms in India trying to manufacture these leather goods at present?

Mr. Stones.—There are.

President.—I do not want to go deeply into the question, but I wanted to ascertain whether you had something definite in view.

Mr. Stones.—There is a definite feeling that one application for protection would lead to others.

President.—I can quite understand that a series of duties on materials eventually might be a heavy burden on the cotton manufacturer.

Mr. Stones.—For example, if picking bands, leather goods, belting, etc., get protection, that would be a serious burden on the top of the excise duty.

President.—That is a very reasonable point of view. The chief conditions which the Association think ought to be satisfied before protection is given are—

- (1) that it should only be continued for a limited number of years;
- (2) that the industry should eventually be able to supply the whole needs of the textile trade; and
- (3) that you would like to have a guarantee as to the quality of the Magnesium Chloride produced, so that it will be clear that the trade would not suffer by having to use the Indian article.

Mr. Stones.—Yes.

President.—As regards the ability of the Indian manufacturer to produce all the Magnesium Chloride the textile industry is likely to want, as far as I can judge, there does not seem to be any doubt about that.

Mr. Stones.—Kharaghoda could supply a sufficient quantity.

President.—So that I do not propose to dwell on that point. As regards the limitation of the period the practical suggestion you have made is that the duty might remain at its initial rate for about five years, and should gradually decrease during the next five years, so that at the end of ten years it would come down to the ordinary level of the import tariff.

Mr. Stones.—That follows the line suggested by the Fiscal Commission.

President.—I take it that the exact period of years is given rather for illustrative purposes?

Mr. Stones.—That is right.

President.—It might perhaps be as long as 15 years, but if it extended to 20 years, would you regard that as being on the high side?

Mr. Stones.—Yes, but the point we fear is this: you will have to regulate that almost to the influence of German competition. It is a waste product there and it may come in at next to nothing. That point has got a very important bearing on the question. I think until the time came when the import duty was brought to its present level, there would always have to be some provision to enable them to work on a certain basis.

President.—That is the next point I wanted to come to. I gather from what you have just said that you agree with what the Pioneer Works themselves have told us, that in Germany Magnesium Chloride is a waste product that is produced in the process of extracting other and more valuable salts from the raw material?

Mr. Stones.—Yes.

President.—If it is so, it is extraordinarily difficult to say what the minimum cost of production might be, because it might pay the manufacturer to sell at almost any price. If they have got to extract the Magnesium Chloride, in any case, it is only a by-product, and anything that gives them some addition to the price they would get for the valuable salts is worth getting.

Mr. Stones.—Anything that is a little above the dumping price is a profit, but the whole point is that it may come down.

President.—In that case what prospect is there that the Indian industry will eventually be able to hold its own without any protection when the tariff goes?

Mr. Stones.—That is why I raised the point that there would always have to be a provision in the matter of the period whereby, when the imported article assumed that price, the duty will have to come on. If we get down to below Rs. 2 for Magnesium Chloride that is brought well down below the cost

of manufacture and does not even pay the railway freight from Kharaghoda, I should imagine; so, that would always have to be allowed for, as you have to compete with a material which is produced as a waste product.

President.—That seems to me rather to destroy the condition laid down by the Association.

Mr. Stones.—It does in some measure, but after a period of years we may find uses for new articles. The point is we are subject to a squeeze now; in Magnesium Chloride, and the manufacturer of magnesium in India would equally help in other directions and we shall not get such violent fluctuations. If the supply is from one section of the community and that section is not allied with the British Empire, we have got the danger of a squeeze up. With Kharaghoda we may lose on the swings but we may gain on the roundabouts.

President.—It is not so much that I want to discuss the merits of the proposal just now. I am trying to ascertain exactly what the view of the Association is.

Mr. Stones.—The view of the Association is that, although we would like to see it brought down to normal within a period of 10, 15 or 20 years, in view of the fact that the German product is simply a waste product, the supply of which is reputed to be almost inexhaustible, so far as the present generation is concerned, there must be some bogey figure, for want of a better word, at which the duty should continue.

President.—That is the view of the Association. How are the Board to determine what the bogey figure is?

Mr. Stones.—The bogey figure would be something which would return 6 per cent. to the Kharaghoda works.

President.—But that might be anything.

Mr. Stones.—Within reason.

President.—At present it would be something like Rs. 5-12 a cwt.

Mr. Stones.—It becomes prohibitive.

President.—Supposing that we find that the actual price at which the Kharaghoda Works can sell in Bombay and earn 6 per cent. on their capital is Rs. 5-8, is that a satisfactory price to the Association?

Mr. Stones.—It is not by any means.

President.—Then how are we to determine the fair price?

Mr. Stones.—The point is this. Every figure, even a duty of Re. 1, is unreasonable to-day when we are paying excise duty in such huge volumes, but 5 or even Rs. 10 would not be prohibitive with the excise duty removed.

President.—We must keep a little closer to what the Association has said in their letter. They say "provided that at the end of, say, ten years the industry can carry on with no more assistance than the ordinary import tariff gives." You now qualify the statement by saying that it may be necessary to lay it down that the industry might still require assistance during periods when the price of the imported article was abnormally low. What I am trying to get at is by what process is the Tariff Board to determine when the price of the imported article is normal and when it is abnormally low. It is a practical problem I am up against.

Mr. Stones.—It is very difficult to ascertain.

President.—Of course it is possible that ten years from now things may have settled down, and it may be possible to say that the average price for the 10 years has been so and so, and that looks like a reasonable figure. But at present when the German prices have not settled down in the case of any single article to what you may call post-war normal level, I think it is extraordinarily difficult for the Tariff Board to express an opinion whether eventually the Kharaghoda Works would be able to produce Magnesium Chloride at a price not very much above what will then be the normal price of the imported article.

Mr. Stones.—It could not be done. We can hardly predict what is going to happen ten years ahead.

President.—How am I to apply the criterion suggested by the Association?

Mr. Stones.—In the same way all these things will come up for re-examination we presume. You cannot presume the same thing is going to continue for a long period of years.

President.—Certainty is unattainable in any industry, but I gather that the view of the Association is that, unless the Board feel reasonably satisfied that at the end of ten years the industry would not require special assistance, they would not be in favour of the industry being protected. My difficulty is how am I to arrive at a reasonable assurance?

Mr. Stones.—That is the ideal aim I think of all industries in India but whether we can guarantee that we do not know. I think as far as I can say, without committing the Association over much, they would not be willing to come up again for ten years with 50 per cent. duty.

President.—I quite understand that point of view, and I have no particular comments to make about it just now. It is much more the practical aspect of the case I want to examine.

Mr. Stones.—We cannot fix a price looking ahead, say, 10 or 15 years and say they will be in a position to stand on their own legs without assistance of any extra duty.

President.—Let me put it in a slightly different form. I worked out the figures on the data supplied by the Pioneer Magnesia Works, and at present taking into account all the charges which they say they have to incur before the Magnesium reaches the cotton factory in Bombay, the price they would have to get works out to something close on Rs. 6 a cwt. It is possible they have put some of their figures too high, and, of course, when they come before us, we will have to ascertain which of these charges can be reduced as time goes on. But, supposing the Board came to the opinion that they did not see any particular prospect of the reasonable selling price falling below Rs. 5 a cwt., i.e., Re. 1 less than the present cost, would the Association regard that as a reasonable price or on the high side?

Mr. Stones.—It comes back again to the same point. If it is an individual item I do not think the millowners would object, but if that is one multiplied by many they would object.

President.—What is sauce for the goose is sauce for the gander. If the Board or the Government of India and the Legislature take a certain line in the case of one industry, they must take the same line if the circumstances are the same in the case of another industry.

Mr. Stones.—We claim that they should state that the cotton industry is of special importance.

President.—I cannot accept any responsibility for that.

Mr. Stones.—We are handicapped by the excise. Were we on even market with other industries, we would be prepared to take the same treatment with reference to stores as other industries.

President.—If the excise duty is removed, you believe that the Association would not object?

Mr. Stones.—Certainly. It is a check against abnormally high prices.

President.—I am going to take that point, but apart from the opinion of the Millowners' Association, we, as a Board, have to respect the conditions laid down by the Fiscal Commission definitely. One of them was that eventually the industry should be able to dispense with protection, and we shall have to attach great importance to the point whether the manufacturers can satisfy us that they can make a very big reduction in the price they require at present. Their present figures are very high, there is no doubt about it.

Mr. Stones.—The point is that, in view of the fact that the competition comes from waste products in other countries, I think that is one of the few industries where there is very little prospect of its standing on its own legs.

President.—Then the question arises—could it be said that the industry in India possessed natural advantages? A difficulty would arise there.

Mr. Stones.—If there is a certain amount of natural advantage but it is very little.

President.—As compared with other countries such as Germany?

Mr. Stones.—Germany has super-excellent natural advantages.

Mr. Ginwala.—Germany cannot be said to possess any natural advantage: it is only an advantage arising out of industrial organisation.

President.—I do not myself think that as regards natural advantage you can altogether exclude advantages arising from the whole state of society in a country. Fifty years hence when India has progressed industrially, there might be a demand from other concerns. It is conceivable that the Magnesium Chloride industry might grow up as a by-product industry in the same manner as in Germany. I do not want to dogmatise, but I am putting these points to you to see what view you take.

Mr. Stones.—Yes.

President.—Now on this question of the price I am very glad that you will be able to give an opinion about that. You have said, I think, in the letter itself that, at present-day prices, 50 per cent. duty ought to suffice. What are approximately the present-day prices? Perhaps you will be able to tell us. You have got a graph there showing the prices for a long period.

Mr. Stones.—It shows a price ranging from Rs. 19 right down to Re. 1-12.

President.—When did it begin?

Mr. Stones.—From January 1920 onwards.

President.—Whatever fluctuations there may be, I presume they are not likely to be so great as in the four years that followed the war?

Mr. Stones.—They were absolutely phenomenal.

President.—What was the highest point touched?

Mr. Stones.—Since 1920 the highest we have is Rs. 18 a cwt. and we go down as low as Re. 1-12.

President.—Then I see the curve fell pretty steadily.

Mr. Stones.—Rather rapidly in February 1922 and then it went right down in August 1922.

President.—What was the price in August 1922?

Mr. Stones.—Rs. 4.

President.—Since then, what is the highest price it has touched?

Mr. Stones.—Rs. 6.

President.—And the lowest?

Mr. Stones.—Re. 1-12.

President.—Is Rs. 5-8 about the present price?

Mr. Stones.—It varies from Rs. 4-12 to Rs. 6.

Mr. Ginwala.—On what date was it Rs. 6?

Mr. Stones.—In November 1922.

President.—What was the date of the lowest price?

Mr. Stones.—October 1923.

President.—These prices that you are giving, are they the prices of Magnesium Chloride delivered from the godown in Bombay?

Mr. Stones.—These are prices *ex-mill* Bombay,—delivered at the mills.

President.—Is it the custom of the Cotton Mills to import direct from Europe, or is it imported by dealers and purchased by the mills from the dealers?

Mr. Stones.—Big firms buy in Manchester and ship from Rotterdam or Antwerp.

President.—Are the fluctuations in prices so wide if you import direct?

Mr. Stones.—No. The prices were more stable, except during times when there was shortage of steamers.

President.—It is important, you see. Merely local fluctuations will right themselves after 3 months or so. You cannot under any system of protective tariff adjust these. I take it that this very low price of Re. 1-12 was due to accumulated stocks.

Mr. Stones.—And over selling. Every dealer indents on Home and it is a question of supply and demand. I would not buy direct myself at that price: we shall have a swing back.

President.—Would it be possible for the members of your Association to give us approximately the variations in the price for direct imports, say, for the last two years?

Mr. Stones.—The difficulty there is that one does not get the purchases. Here I take a view of the market, say, some six months ahead over a period, but in the direct imports one does not get the corresponding fluctuations that we have not here. It would not be possible to get it except by a reference to the Chemical Trades Review. Magnesium Chloride is quoted there.

President.—Is the price given in the Chemical Trades Review a reliable price?

Mr. Stones.—Yes. The Dyers and Calico Printers' Journal is even more reliable. They specialise in heavy chemicals used in the textile trade and their price is very accurate.

President.—Very likely the Director General of Commercial Intelligence will have it. Do you think that these prices are reliable and represent fairly accurately what the purchaser of a fairly large quantity will have to pay?

Mr. Stones.—Yes.

President.—I take it that this present price of Rs. 5-8 is due mainly to local fluctuations?

Mr. Stones.—It is a squeezed price.

President.—What was the last price at which your own firm purchased?

Mr. Stones.—Somewhere about Rs. 3-12. I am importing now at about Rs. 3-12. But, as I said, in all these stores we take a view of the market: you cannot say that it is a real guide, it is more a speculative price.

President.—Would it be possible to separate the price of Rs. 3-12 delivered at your mill into f.o.b. price and the freight and landing charges?

Mr. Stones.—We ourselves are agents of the line of steamers that carry Magnesium Chloride, so that we can work these out for you if you wish it.*

President.—That would be distinctly helpful, because after all the price we want to determine is roughly at what price normally the imported Magnesium Chloride is likely to enter the country. There is another point affecting the prices and that is this. Is the consumer in India, I mean the cotton mills, prepared to pay the same price for the Magnesium Chloride from Kharaghoda as it pays for the German Magnesium Chloride?

Mr. Stones. No. That is the peculiarity of the whole thing; there is always the question of quality from their point of view.

President.—I would come to the question of quality later on. What would be about the difference?

Mr. Stones.—I think weaving masters in India will be prepared to pay a rupee more for the German chloride—for a fictitious reasons in my own opinion. Their behalf, is I am sorry to say, that everything Indian is bad and everything foreign must be good. They have got the idea that there is some special virtue in the German chloride that does not exist in the Kharaghoda chloride. I had sent Kharaghoda Magnesium Chloride to one of our mills. It had been at the place for only 2 days when the weaving master said that he would prefer foreign Magnesium Chloride. My question was 'why'? The answer came back that the colour does not look as nice. But on the prac-

* Not received.

tical tests and the chemical analysis it has certainly proved to be as good as the German product. There is a bias.

President.—The point is that at present this prejudice exists, but if, after a prolonged trial, the Indian product is found to be giving equally good results, I take it that prejudice will disappear.

Mr. Stones.—Yes, but it does exist to-day.

President.—Well now, as regards this application for protection that has been made by the Pioneer Magnesia Works I have two difficulties. 200 per cent. seems to me an enormously high duty, and it is practically impossible to justify that figure unless we take as our basis a selling price which was merely due to overstocking in the Bombay market: it was a purely temporary thing. On the other hand, I find it equally difficult to see how 50 per cent. is sufficient for them at present. You are importing Magnesium Chloride for Rs. 3-12, they suggest a duty of Re. 1-8 per cwt. which brings the price up to Rs. 5-4. But then the mills won't pay more than Rs. 4-4 and certainly Rs. 4-4 is a hopeless price for them at present.

Mr. Stones.—Yes.

President.—It is unfortunate that we have not had a chance of putting it to the manufacturer first; obviously he is the person to answer that.

Mr. Stones.—All I feel is that the consumer is not right in having that bias, but the bias does exist against Kharaghoda. You have got to face the facts. It represents anywhere between four annas to one rupee.

President.—No doubt it would vary with different buyers?

Mr. Stones.—Personally I would pay the same price. But there are others who say it is not as good as the foreign product. We have got a staff of chemists who have analysed the Kharaghoda product, and the results have been as good as with the German product. I have never found any difference.

President.—What I gather from what the firm themselves said was that the colour of the Magnesium Chloride, as supplied by them, was inferior to the colour of the German stuff.

Mr. Stones.—Yes.

President.—But does that inferiority in colour affect the cloth?

Mr. Stones.—I have never been able to trace the slightest variation due to the colour. I am only expressing my own opinion.

President.—There is a difference of opinion, I gather, even amongst the mills?

Mr. Stones.—Yes, even among my own staff. But personally I have got no evidence yet. I have gone into it with the idea of damming it if I can, so that there should be no bias, but I have not found it myself. That is my personal feeling. The main point in my opinion is that it should be free from free iron; this is absolutely essential.

President.—Have any of the other mills alleged that there is free iron in the Indian product?

Mr. Stones.—No.

President.—The Association have also said that it ought to be equal to the imported stuff in the standard of refinement. What precisely does that mean?

Mr. Stones.—The desire of the Association is that it should be made equally white so that the prejudice that does exist would be wiped out.

President.—Is "refinement" the same as colour?

Mr. Stones.—No. "Refinement" and colour are two different things.

President.—What exactly is meant by 'refinement'?

Mr. Stones.—I should personally say what it really means is that no extraneous matter should be present in any quantity; that is all. You refine anything to remove impurities of any kind in it.

President.—You mean that it should be simply what it professes to be and nothing else?

Mr. Stones.—Yes, of a reputable commercial quality free from impurities.

President.—Do some members of the Association think that the Indian product is inferior in that respect?

Mr. Stones.—Yes, some of them do.

President.—It makes it a little difficult for the Board to decide because what the committee wants is some sort of guarantee that the Indian product should be equal in colour and refinement. Who is to give the guarantee and how is it to be arranged?

Mr. Stones.—The people who are asking for protection can surely give certain guarantees with limitations.

President.—Does it mean this, that if the Board are not satisfied that they are capable of producing it equal in colour and refinement to the German stuff, they ought not to recommend protection?

Mr. Stones.—It practically amounts to that: that is the feeling of the Association.

Mr. Ginwala.—As the quantity used by you is so small you can protect yourself against that very easily. Supposing the quality deteriorates, you can at once say "well, this 50 per cent. was given to enable you to carry on, if you do not improve your quality we shall again go back to the German source".

Mr. Stones.—But why increase the price of the German Magnesium Chloride?

Mr. Ginwala.—Supposing that happens; and rather than use the inferior article the millowners buy the German stuff, the manufacturer will at once go back to the Government of India and ask for additional protection. That will be your time to say that the quality is inferior.

President.—What I want to get at is, what is the view of the Association?

Mr. Stones.—We feel that we do not want any protection to be given to something which is obviously so inferior that we are going to put 50 per cent. on the German article, and then buy the article after putting 50 per cent. on it.

President.—Is the Association as a body prepared to express any opinion whether the product of the Kharaghoda Works does or does not satisfy the conditions they have laid down?

Mr. Stones.—It does not to-day.

President.—You don't think it does?

Mr. Stones.—Certainly two-fifths of the members of the Technical Advisory Committee of the Association think that the Kharaghoda product does not satisfy the conditions. Personally I do.

Mr. Ginwala.—Is it the position that, even if you give 50 per cent., two-fifths of the members will say they will still buy the German stuff?

Mr. Stones.—Quite so.

President.—The Association, as a body, consider that these conditions ought to be fulfilled?

Mr. Stones.—Yes.

President.—Some think that they are fulfilled, but the remainder think that they are not fulfilled. It is a little difficult for the Board to constitute themselves as judges when the people who are in the business themselves do not agree.

Mr. Stones.—I quite recognize that, and I requested one of my colleagues who thought it did not fulfil the conditions to come along to give evidence. But he did not come along.

President.—Apart from that, I was wondering whether your Association contemplated any system of Government inspection or control by which Government should assure itself that they were manufacturing the right stuff?

Mr. Stones.—That was contemplated. It is contemplated by the Association that, in return for the 50 per cent. duty, there should be enough check to ensure freedom from free iron.

President.—There would have to be some system of inspection?

Mr. Stones.—Yes.

President.—As regards refinement I see no particular difficulty, but as regards the colour they say they have tried in vain to get rid of the grey colour; they cannot do it. Do a certain section of the Association think that they should definitely overcome that difficulty?

Mr. Stones.—I think in process of time they would eliminate that. Of course a certain section of the Association advocate no duty: they are against it, but then there is bound to be difference of opinion among a large body of thinking men, in this particular case about the quality. Personally I do not find it in any way harmful, and I think that gradual usage would eliminate what I consider a false apprehension that the colour is harmful. That is my personal opinion.

President.—That is to say, your personal opinion is that this colour in the Magnesium Chloride is not harmful and goes away in the subsequent stage?

Mr. Stones.—Yes. It is in the nature of crystallisation.

President.—Now, on this general question of the rate of duty, supposing a duty of Re. 1-8 per cwt., which has been suggested, was thought sufficient to meet the need of the Works at present, and supposing the Board found that it would have to be increased to Rs. 2 or 2-8, would that affect the views of your Association?

Mr. Stones.—Certainly they would object to it unless you bring about a reduction in the excise duty.

President.—I see that you say "The increase in cost per 1,000 lbs. of cloth if a 200 per cent. duty was imposed, basing calculations on the average price of Magnesium Chloride for the past 12 months, would be between Re. 1-4 and Re. 1-12 in the case of Bombay City and Island mills." What figure were you taking for the 200 per cent. duty? 200 per cent. on what?

Mr. Stones.—On Rs. 3-12/-0. These figures vary with different people, we worked it at Rs. 3-12-0.

President.—If it were limited to 1/12 it would only be one-fifth of the figure you have given us, so it would be very small indeed.

Mr. Stones.—Yes.

President.—Then again, taking it for 1,000 yards on the average it would be one-fifth of the one-fifth?

President.—What is the reasonable average figure to take for the cost of 1,000 yards of cloth?

Mr. Stones.—Re. 1-6-0 per lb. at 5 yards per pound, that is 200 times Re. 1-6-0.

Mr. Ginwala.—Are you taking the selling price or the cost?

Mr. Stones.—I am taking the selling price. Unfortunately it is below cost. You would not be far out if you took Re. 1-6-0 as the price, both cost and selling price.

Mr. Ginwala.—Possibly we might wish to get information from the firms that make a business of importing Magnesium Chloride, as they are probably buying more constantly and following the market more closely, and it is just conceivable that we might write to them and get information about the prices. Can you give us the names of these firms?

Mr. Stones.—Yes.*

* The largest importers of Magnesium Chloride are: The Sizing Materials Company, Hornby Road; Messrs. Chimanlal Kaliandas and Company, Tamarind Lane; Mr. Francis Klien, Amrut Buildings, Ballard Estate.

President.—You have told us that the increase in the cost resulting from the duty would be a good deal bigger in the Ahmedabad than in the Bombay mills. Do they use more sizing because it is a drier climate?

Mr. Stones.—A much heavily sized cloth is woven, and for this as much as 100 to 130 per cent. of size is required there. That entails a much larger consumption of Magnesium Chloride than in Bombay where the mills do not put on more than 40 per cent. of size. The drier climate in Ahmedabad entails the use of more Magnesium Chloride so that you will have to double it.

President.—Is it about double the figure for Bombay?

Mr. Stones.—It would be about 4 times as much. They would require $2\frac{1}{2}$ to 3 times as much sizing, and then they would have to have additional Magnesium Chloride because Ahmedabad is all the year round much drier than Bombay.

Mr. Ginwala.—What is the effect of the size on the cloth?

Mr. Stones.—It strengthens the yarn. The point is that Magnesium Chloride is only required when we size more than what is really necessary. We can do without Magnesium Chloride altogether when we are sizing up to 10 per cent. or 15 per cent. It is all a question of holding the moisture that keeps the yarn pliable.

Mr. Ginwala.—With regard to the German Magnesium Chloride, I see you have stated that it is a by-product or even a waste product. But there is also another factor which is that they get very cheap freight.

Mr. Stones.—Yes. From the Stassfurt mines it goes down the Rhine to Antwerp, and then it comes from Antwerp to Bombay and there is practically nothing in the way of freight.

Mr. Ginwala.—Do they use it partly as ballast?

Mr. Stones.—It is bottom cargo. Any cargo is better than no cargo!

Mr. Ginwala.—So that, in addition to its being a by-product, there is this advantage which will continue for a long time?

Mr. Stones.—Yes. The freight rates are very cheap.

President.—I cannot understand the figures given by the Pioneer Magnesia Works. It works out to Rs. 30 a ton from the factory at Kharaghoda to godown at Bombay. How does it amount to as much as that?

Mr. Stones.—You will have to proceed very cautiously with their figures.

Mr. Ginwala.—With regard to the natural advantages, can we really compare the natural advantages of an industry in one country where it is produced as a waste product with another where the article has to be manufactured? Would it not be fair to compare the natural advantages by assuming that in both countries the article has to be manufactured?

Mr. Stones.—It is very unfair to say that India has natural advantages as compared with Germany to-day.

Mr. Ginwala.—There is a real distinction to my mind, at any rate, between the natural advantages which arise from natural causes and those factors in which the advantage does not arise from natural causes but follow from the conditions of the industry.

Mr. Stones.—It is a natural advantage. They have got the Stassfurt mines which have an unlimited supply of "mother liquor."

Mr. Ginwala.—But is it not the fact that they have got to refine the other chemicals? Therefore the advantage appears to be partly due to the fact that Magnesium Chloride is found with other natural products which have to be in their turn partially manufactured?

Mr. Stones.—Yes.

Mr. Ginwala.—There is that distinction, I think, between the two conditions?

Mr. Stones.—Yes.

Mr. Ginwala.—So that it may happen in almost any industry where one industry is carried on along with other industries in more advanced countries with more organized conditions of work. If you have to establish that industry by itself in India, that disadvantage must occur.

Mr. Stones.—Certainly, although as regards Kharaghoda it might be said to have a small natural advantage.

Mr. Ginwala.—But, all the same, if you are to look upon it strictly in terms of the Fiscal Commission's recommendations.....

Mr. Stones.—Then there is no case here at all, because it does not fulfil that one thing that it shall be able to stand on its own feet.

Mr. Ginwala.—Unless it was modified to this extent that it was considered applicable only under normal conditions.

Mr. Stones.—Even under normal conditions it is doubtful, because it has to compete with not only by-products but with waste products.

Mr. Ginwala.—What is your position? I take it that at present Germany has a monopoly so far as India is concerned: is it not a fact that should be taken into account? Supposing our relations with Germany became strained?

Mr. Stones.—We allow that it has a scope. It will bring this abnormal swing of the pendulum in the other direction. We might pay a little more in times when things are fairly free, but we shall not pay so excessively when things are abnormal.

Mr. Ginwala.—But there are two points. Supposing there was again war. Well, in that case it would be a distinct advantage to have an industry established here?

Mr. Stones.—Yes. But it may happen as it did during the last war. We simply turned from Magnesium Chloride to Calcium Chloride.

Mr. Ginwala.—But it will cost more?

Mr. Stones.—Yes, and of course it is not so satisfactory as Magnesium Chloride in sizing.

Mr. Ginwala.—The next point is that one country should not absolutely depend on another country for its industrial requirements. Something may happen in Germany which may dislocate its whole industrial organisation and you may be prevented from getting Magnesium Chloride from there. Is this the most suitable of the alternatives for your purpose?

Mr. Stones.—Yes, it is the ideal deliquescent, cheap and very effective.

Mr. Ginwala.—In determining the price, what criterion would you suggest?

Mr. Stones.—It is something about which I would have to think very hard and very long.

Mr. Ginwala.—You may recollect what recommendation we made in connection with steel. There we said: first of all this is the price at which India can manufacture steel and sell at a reasonable profit; then, this is the price at which steel is imported into the country and the difference between the two is the measure of protection. That is roughly the principle on which we went. Here in this case what are we to do? With regard to the price at which it can be manufactured after making such allowances as may be necessary, we may get it. But with regard to the import price, you yourself have given all those variations. What are we to take?

Mr. Stones.—I would not take anything above Rs. 6 which is just as far as we can go.

Mr. Ginwala.—If that is the price which they get, will you be satisfied?

Mr. Stones.—We will never be satisfied.

Mr. Ginwala.—Suppose we found, after allowing them a reasonable profit, it came to a certain figure not exceeding Rs. 6, would your Association accept it as a reasonable figure as a starting point?

Mr. Stones.—It is rather a difficult question. It is an Association question more than a personal one. Personally I would be prepared to pay Rs. 6, but some of our members would not. I would not commit the Association.

Mr. Ginwala.—Would Rs. 6 be an excessive burden?

Mr. Stones.—It cannot be. Rs. 20 would not be an excessive burden when we are bearing burdens 50 times more than that in the shape of cotton excise duty.

Mr. Ginwala.—If we can derive a figure which would make the manufacture reasonably remunerative to the manufacturer and at the same time not unduly burdensome, the position will be much easier.

Mr. Stones.—Yes.

Mr. Ginwala.—Supposing the German price falls very much below that figure, then of course, the country can say "make good the difference by an extra duty" which we called in the steel enquiry off-setting duty. That, you think, might meet the situation provided the price fixed is not excessive?

Mr. Stones.—Yes.

Mr. Ginwala.—With regard to colour, there is always that danger in protection. Free-traders always say, don't they, the moment you give protection there is a chance of the manufacture deteriorating? It is not necessarily confined to this particular industry. Of course in this case there is only one firm manufacturing Magnesium Chloride at present, but that is really an accident.

Mr. Stones.—I don't know. We have mentioned that, if protection is given, we would like to see a standard fixed and maintained.

Mr. Ginwala.—Supposing the amount of protection that they get is enough, they may become slack.

Mr. Stones.—That is one stable argument of free-traders, but we don't want to give protection unless we are assured that a reasonable standard will be kept up.

Mr. Ginwala.—As the President pointed out, how are these guarantees to be enforced? They can be enforced by direct supervision. Who is going to supervise?

Mr. Stones.—The Government of India have got Factory Inspectors, Excise Inspectors and so on. If I were running a place like that, I would soon find somebody to do it.

Mr. Ginwala.—Would it be possible for the Millowners' Association to find for the Government a suitable man who can live in the premises and do the supervision?

Mr. Stones.—It would be possible for them to find a man, but it would be asking them to do somebody else's work.

Mr. Ginwala.—They will be looking after their own interests.

President.—It must be Government work if it is to be done at all?

Mr. Stones.—Quite.

President.—Supposing the position arose that the Government Inspectors held that the quality was all right and half the mills got up and said that it was not, what is going to happen? After all, Mr. Ginwala is right in suggesting the inspection might be by a representative of the Millowners' Association, because it is only the mills who can decide whether the quality is up to a certain standard or not.

Mr. Stones.—Let a certain definite standard be laid down.

President.—If you can certify that there are no impurities, that will settle the question?

Mr. Stones.—Yes.

Mr. Ginwala.—As regards the colour?

Mr. Stones.—I think that we have eliminated the question of colour and said that in course of time colour would improve.

President.—There the Pioneer Magnesite Works have no particular hope. They have uniformly failed in their endeavours to improve the colour.

Mr. Stones.—I say that, as far as we can ascertain, it does not affect the cloth.

President.—You have told us that, as regards the suitability of the colour, there is a difference of opinion amongst you.

Mr. Stones.—Yes. The point is that those who do not believe in it will go in for the imported article.

President.—We come back to the old point. Your Association agree that protection may be given if certain conditions are fulfilled, and a large number of members of your Association think that they are not fulfilled.

Mr. Stones.—Even then, a standard could be laid down. After all, you could never satisfy 100 per cent. of the people on any subject.

Mr. Ginnala.—The difficulty in this question is this: that even if you put on a duty of 50 per cent. you will not be able to induce a millowner who believes in this colour disadvantage to use it.

Mr. Stones.—Quite so. He will have to buy it from outside. We only want reasonable guarantees that the product will be all right.

Mr. Ginnala.—The trouble is, supposing a guarantee is given, two-fifths of your members, or whatever it is, will still say "we don't agree".

Mr. Stones.—They will buy from outside. Still you can protect those who agree for the sake of the country.

Mr. Ginnala.—We are trying to investigate that. I suggest to you this. It may be possible for you to say to the Government "we will keep our man there". Government or you can pay. It is a very small matter. He will do the work of supervision. Supposing, on the other hand, the millowners are dissatisfied with the quality, they can report the matter to their man at the works, who is the Inspector or whatever he is called, or to the Government of India and say "we are willing to submit to this additional tax but we are not satisfied with the quality" and the Government of India may say "all right, we will hold another enquiry." That is a sufficient guarantee to you.

Mr. Stones.—If a reasonable standard quality is given, I don't think that the trade itself would have any objection.

Mr. Ginnala.—We cannot lay down any enforceable standard, that is the trouble.

Mr. Stones.—We can say that it shall consist of so much percentage of magnesite, so much percentage of water, and so forth and that there shall be no trace of "free iron." That is good enough. It will be possible then by a chemical analysis to say whether it comes within the standard or not.

Mr. Ginnala.—When you lay down a standard like that, you will have to constitute some authority to apply it.

Mr. Stones.—What is our remedy then? Our remedy is that we cannot buy any more Kharaghoda.

Mr. Ginnala.—At the same time you report against the industry.

Mr. Stones.—I must have some lines to see whether it is right or wrong. There must be some definite standard fixed.

Mr. Ginnala.—You can say that it is not of commercial quality, we have given it a fair trial and we find it is defective. If a number of complaints on these lines are received by the Government of India, they will say that this is the only firm manufacturing it and that they will look into the matter. There is an end of it.

Mr. Stones.—That is right, so long as there is a reasonable guarantee that they don't fall back. We don't want to give 50 per cent. more for nothing.

Mr. Ginwala.—With regard to your Millowners' Association, how does your Association work when a question like this is referred to it? Did you have this point discussed at a general meeting?

Mr. Stones.—Yes. Generally it is referred to a scientific sub-committee, who have to submit a report to the general body. A meeting of the general body is then called and the report is discussed.

Mr. Ginwala.—Is it a rule that the majority opinion binds the Association?

Mr. Stones.—Yes.

Mr. Ginwala.—May I take it that this present opinion is that of a majority?

Mr. Stones.—Obviously.

Mr. Ginwala.—So far as the outside world is concerned, though you differ from the majority, you feel yourself bound by what has been done.

Mr. Stones.—That happens in all questions.

Mr. Ginwala.—Those who are in a minority are apt to say that they are in a minority and therefore they are compelled to accept the opinion of the majority.

Mr. Stones.—There is always a section which does not want protection for anything in any way.

Mr. Ginwala.—A person may be in a minority and he may say, as he was in a minority, he did not press his opinion: still he will abide by the decision of the majority.

Mr. Stones.—Fortunately the Millowners' Association have got the support of over 80 per cent. of their members. I don't think that any member of the Association will say 'I don't agree to it'.

Mr. Ginwala.—They won't be in a position to do it, in your opinion?

Mr. Stones.—If the Tariff Board make a recommendation and if the Government of India accept it, they will have to abide by it.

Mr. Kale.—With regard to the standard of quality that we have been discussing just now, will it not be a satisfactory thing if we suggest, for instance, that the Government Test House in Calcutta might be asked to test the Kharaghoda stuff every fortnight or every month, and will not that opinion have some weight with the members of your Association?

Mr. Stones.—It would have.

Mr. Kale.—That is now being done in the case of many articles, for example, cement.

Mr. Stones.—Yes, I know.

Mr. Kale.—The test carried out in the case of cement at the Alipore Test House is regarded as a satisfactory test. I don't see any reason why a similar practice should not be established in the case of Magnesium Chloride. No doubt those who do not want to use it or have very strong prejudice against it will not use it. That also happens in the case of cement; in spite of the fact that the Government Test House at Alipore have declared the Indian cement to be entirely satisfactory, there are some people who have got a very strong prejudice against it, but as it is hoped that that prejudice will gradually disappear, may we not hope that this prejudice also will disappear in view of the opinion of the Test House given from time to time?

Mr. Stones.—That is my real feeling on the matter. Time will eliminate the feeling that the Magnesium Chloride from Kharaghoda is not so good as the German product.

Mr. Kale.—The question was raised with regard to the machinery for testing the Kharaghoda product and therefore I suggest that the Government Test House might be asked to do it.

Mr. Stones.—In view of the importance of the cotton industry of Bombay, an institution like the Test House at Alipore would be an excellent thing. It will carry out a monthly test or something of that nature. That is all

that is needed. I don't want to lay down any hard and fast test and penalties attached to it, if it does not come up to the standard.

Mr. Kale.—I should like to know whether Magnesium Chloride is used as a sizing material by the handloom industry.

Mr. Stones.—No, or rarely so. I have never come across a case. I don't think it is used. The handloom industry uses a very rough paste, wheat starch or something like that.

Mr. Kale.—I am only asking you whether there is any demand for Magnesium Chloride for sizing in the case of the handloom industry.

Mr. Stones.—Negligible.

Mr. Kale.—Are there any Magnesium Chloride Works in Great Britain?

Mr. Stones.—Not that I am aware of. There were one or two works which made Magnesium Chloride during the war, but it was very expensive and only a war measure.

Mr. Kale.—They also are buying from Germany?

Mr. Stones.—Practically all the world's supply comes from the Stassfurt mines.

Mr. Kale.—With regard to the question of standard price which we were discussing, it occurred to me that in the course of the next three or four years, if we were assured about the full output of the Kharaghoda Works, what might be called the normal price in the case of these works could be obtained after they had secured certain concessions with regard to railway freight and so on. Can you not say that that price may be taken as a standard price, so far as the Indian stuff is concerned?

Mr. Stones.—I don't like to express any opinion now. I would rather deal with the standard price of the future in future. There are so many factors in it.

Mr. Kale.—I am putting it in a very general way. Of course I don't want to tie you down to a particular figure.

Mr. Stones.—There are certain considerations which go to make up what might be regarded as a normal price.

Mr. Kale.—I think that, in the case of Kharaghoda Works, when they are working up to their full capacity, and when they have practically introduced all the economies that are practicable, we may get a price which may be regarded as a normal price. I am not quoting any particular figure.

Mr. Stones.—I suggested earlier that that price should be determined at not more than Rs. 6 with guarantees for the quality, but I am not prepared to dogmatise on that.

Mr. Kale.—May I take it from what you have said that, on the whole, you would favour a locally made article rather than an imported article, in the interests of the country?

Mr. Stones.—Yes, in the interests of India.

Mr. Kale.—Your only difficulty is that you are already handicapped on account of your imported stores?

Mr. Stones.—We have got a tremendous number of handicaps.

President.—What it comes to is this: that by protecting a number of minor industries you might knock out a major industry?

Mr. Stones.—Yes. We have already very heavy burdens on us. These small ones, all added together, have the effect of cramping the industry.

President.—I take it that in the event of supplies being cut off from Germany owing to another war, it would not be difficult to start the manufacture of Magnesium Chloride again?

Mr. Stones.—No.

President.—I gather that they started comparatively early in the war in October 1915?

Mr. Stones.—Yes.

President.—From their written statement I gather that there is no elaborate machinery required—nothing that you could not improvise in the country.

Mr. Stones.—Quite.

President.—Purely from the point of view of national interests in time of war, it is not absolutely necessary that the industry should be going on all the time?

Mr. Stones.—No. Kharaghoda is still there and Government could put down a plant in three or four months as a national measure if necessary.

President.—Our experience during the last war showed that, once the stimulus of foreign competition was removed, the Indian manufacturer charged a pretty high price unless Government controlled him.

Mr. Stones.—Yes.

President.—I do not know whether you would be able to tell us about these enormous salt deposits in Germany at Stassfurt. I take it that they contain a good many salts which Kharaghoda would not contain.

Mr. Stones.—Quite so.

President.—In that respect, quite apart from the point that was put to you by Mr. Ginwala, there is a natural advantage which is indisputably natural in Germany which India has not got.

Mr. Stones.—Quite so.

President.—About what Professor Kale was putting to you about the standard price to be arrived at, no doubt in endeavouring to prove the question whether the industry could eventually dispense with the abnormal assistance, we have got to determine the standard cost, or at any rate the standard price which will give the industry a reasonable profit. But I rather gathered that Professor Kale was suggesting to you that that might be adopted as the price you ought to get. There still remains the question of comparing that price with the price of the imported article.

Mr. Stones.—That is the essence of the whole trouble.

President.—It is like this. Professor Kale's standard price gives you one leg and the actual price at which the foreign stuff is coming in forms the other leg and the difference is the amount of protection that is required. But unless the difference in the height of the two legs is fixed by the amount of tariff, I don't think that protection ought to be given if in the long run the industry is going to need more assistance.

Mr. Stones.—That is right.

President.—If it be a temporary period for a year or two, they would allow it but if, say, 20 years ahead, they were still requiring protection, they would think that this was not a case for protection.

Mr. Ginwala.—There is no quotation from England in the Chemical Age, but there is one in the Scottish Chemical market.

Mr. Stones.—Glasgow is also a big centre for heavy chemicals. I will send you a copy of the Dyers and Calico Printers Journal showing the prices.* If you are sending Home, the India Office will be able to get you correct prices from that. The Chemical Age covers a wide field and may not contain quotations for Magnesium Chloride.

Mr. Ginwala.—The price quoted in the Scottish Chemical Market is £3-15-0 c.i.f. United Kingdom. What deduction would you make from c.i.f. United Kingdom and f.o.b. Antwerp?

Mr. Stones.—There is no comparison. c.i.f. United Kingdom Port is about the same as c.i.f. Bombay.

President.—If these fluctuation in prices are merely due to the state of the local market owing to excessive importations, I don't think that they are of importance to us. What is much more important for us to know is

* Not printed.

the f.o.b. Antwerp price; also any big alteration in freight rates, because, after all, if mills keep large stocks, we cannot deal with that.

Mr. Stones.—Quite.

Mr. Ginwala.—How long can you keep Magnesium Chloride without deterioration?

Mr. Stones.—It depends on the state of the drums. If they are airtight, you can keep it for a long time.

Mr. Ginwala.—Are these drums steel drums or what?

Mr. Stones.—They are pressed steel drums. Some are also made of wrought iron. If the drums are not air tight, there will be a tremendous amount of loss.

Mr. Ginwala.—Do they form a substantial portion of the cost?

Mr. Stones.—Yes.

Mr. Ginwala.—From Germany also you get it in similar drums?

Mr. Stones.—The drums in Kharaghoda are better than German drums. They are better able to stand knocking about.

Mr. Ginwala.—That is why, I suppose, there is overstocking in the market. It does not deteriorate by keeping?

Mr. Stones.—It does deteriorate by keeping, because, though the drums are supposed to be air tight, few of them are so, and there is the danger of deterioration. You cannot keep it for long. I buy it from month to month.

Mr. Ginwala.—How much does a drum hold?*

Mr. Stones.—4 cwt.

Mr. Ginwala.—The average cost is Re. 1 per cwt. It is over 40 per cent. of the cost.

Mr. Stones.—That, I should imagine, will be biggest charge of all.

Mr. Ginwala.—Would it be better to have the drums galvanised?

Mr. Stones.—It would be better.

Mr. Ginwala.—Do you get them galvanised?

Mr. Stones.—No, they are mostly rough plates.

Witness No. 4.

GOVERNMENT OF BOMBAY.

WRITTEN.

No. I.

(Letter, dated 9th January 1925.)

I am directed by the Government of Bombay, to refer to your letter No. 4-T., dated the 30th July 1924, regarding the claim of the indigenous magnesium chloride industry to protection against foreign competition. In reply, I am to forward herewith copies of reports from the Superintendent of Industries, Bombay, and the Collector of Salt Revenue, Bombay, giving the information required by you in connection with this question, so far as it is available. Information regarding the factory at Kuda has not yet been received. The Dhrangadhra Darbar, within whose jurisdiction the factory works, has been asked to supply the information, and a reply from the Darbar is awaited. Their report will be forwarded to you as soon as it is received.

2. As regards the opinion of this Government in the matter, I am to say that, in view of the absolutely unaccountable variations in the main heads of expenditure as disclosed by the figures available, it is very difficult to say to what extent the cost of production of the article can be reduced. Apart from the fact that it is inferior in colour, it is not at all likely that the indigenous article can ever compete on level terms with the foreign article unless it can command an infinitely greater market than at present. Under present conditions, an export market for the indigenous article is out of the question unless the industry is helped by liberal bounties. The Government of Bombay are not in favour of giving bounties at present, but consider that the indigenous industry should be helped to capture the Indian market first, for which purpose a very high protective duty is necessary. It is not expected that the indigenous article can be sold at much less than Rs. 5 a cwt., and as the reported ex-godown price of the foreign article is Rs. 2-12-0 per cwt., it would require an *ad valorem* import duty of nearly 80 per cent. to put it merely on a level with the imported article: and even then, owing to its inferior colour, it is doubtful whether it would compete with the latter.

If, therefore, the aim is to keep out the foreign article by a protective duty, that duty should not be less than 100 per cent. *ad valorem*, and this is what the Government of Bombay recommend.

Enclosure.

Copy of letter No. W.-12-820, dated 4th November 1924, from the Superintendent of Industries, Bombay, to the Deputy Secretary to Government, General Department, Bombay.

In response to your memo. No. 4861-8180-D., dated 25th September 1924, I have the honour to submit my views on the question after having consulted the Collector of Salt Revenue on the subject, a copy of whose letter I append herewith.

2. I visited the Pioneer Magnesia Works, Kharaghoda, about two years ago and found that the process of manufacturing magnesium chloride followed in the Works was rather crude. Their furnaces were not well designed and therefore not very efficient. I suggested some improvements by utilizing some of the waste heat of the furnaces for preliminary heating of the bitters before it is finally boiled and evaporated, and by using shallow storage tanks instead of deep ones for the bitters in order to take advantage of natural evaporation and thereby reduce the cost of fuel used for evaporating and concentrating the liquor wholly by means of fuel.

3. I have not been able to visit the Works since then and do not therefore know how far my suggestions were carried out.

4. This is a new and very important industry in India, and if well developed on proper lines it is capable of large expansion and of adding to the revenue of the country by creating a big export trade in magnesia. The raw material is abundant and could be had almost free of cost and the arid and hot climate of Kharaghoda is peculiarly suited to taking advantage of partial natural evaporation and concentration of the mother liquor by the sun heat.

5. As regards the cost of manufacture I am of opinion that it can be reduced if expert advice is obtained from some experienced chemical engineers on the most modern methods of manufacturing this salt. It is true that the Company have engaged a chemist but this problem cannot be solved by a science graduate or an academical teacher of chemistry. The discoloration of magnesia at Kharaghoda may be due to the defective method of manufacture or some inherent chemical impurities which could be remedied by a chemical engineer.

6. I have analysed some of the chief items of expenditure given on page 48 of the pamphlet on "Enquiry regarding the grant of protection to the

Magnesium Chloride Industry " the result of which I give below in cost in annas per cwt. of magnesia manufactured :—

Year.	1916	1917	1918	1919	1920	1921	1922
Production . cwt.	19,327	22,806	36,903	36,434	29,542	17,034	27,059
Factory charges . annas.	16.7	4.6	7.2	8.1	6.2	10.2	5.5
Fuel "	3.3	9.9	17.2	10.2	9.5	14.1	7.6
Drums and packing "	9.0	14.3	21.0	17.0	15.4	33.7	9.8
Establishment . . "	5.5	6.6	7.7	2.5	2.8	11.4	3.7
Selling charges, etc. . "	16.7	13.7	16.8	13.7	8.9	19.5	5.1

7. From the above statement it will be seen that there is a very large difference in each of these five chief items of cost from year to year. As for instance the cost under factory charges per one cwt. of magnesia produced was 16.7 annas in 1916 while it was only 4.6 in 1917, though there was not much difference in the production of each of these years.

8. In the same manner the cost of fuel was the lowest, i.e., 3.3 annas per cwt. in 1916 which rose to the highest in 1918, i.e., 17.2 when almost double the quantity of magnesia was produced, which should have reduced the cost a little instead of increasing it to more than five times.

9. It is stated in page 49 of the pamphlet that the expense in 1921 was high because the production was exceptionally low in that year. With a production of 19,327 cwt. in 1916 the cost of drums was 9 annas per cwt. but with a production of 17,034 cwt. in 1921 the cost rose to 33.7 annas and even with the maximum production of 36,903 cwt. in 1918 the cost could not be reduced below 21 annas. This may perhaps be due to enhanced price, if any, of iron sheets of which the drums are made, though it is not stated in the pamphlet. The cost of drums and packing is a heavy item amounting to almost a rupee per cwt. and if the drums are made stronger and better (corrugated and re-inforced) they may be returned to the factory at a very low cost in good condition for re-filling.

10. The establishment charges were the lowest in 1919, i.e., annas 2.5 when the production was 36,434 cwt., but it was 7.7 annas in 1918 when the production was almost the same.

11. I give below the minimum and maximum charges obtained for these five chief items of expenditure in annas per cwt. of magnesia turned out, from which it will be seen that while the total for the minimum charges amounts to 24.8 annas that for the maximum amounts to 98.5 annas—about four times over—

	Minimum.	Maximum.
Factory charges	4.6	16.7
Fuel	3.4	17.2
Drums and packing	9.0	33.7
Establishment	2.5	11.4
Selling charges	5.4	19.5
	<hr/> 24.8	<hr/> 98.5

No reasons are vouchsafed for these large discrepancies and I think they may be either due to defective management or defective system of book-keeping or large fluctuations in the prices of fuel, materials and wages.

12. These five chief items analysed above constitute more than half of the cost of production and it may be possible to reduce them to the minimum obtained during some years as shown in the above statement.

13. The cost of production could still be reduced if the outturn and sale could be increased by creating new outlets for the stuff by means of an export trade to foreign countries. There is almost an unlimited supply of raw material available at Kharaghoda for the manufacture of this salt, but in order to enable this nascent industry to compete with Germany, a certain bounty shall have to be given to it, in the beginning on all magnesias exported from India without which it may not be possible to create an export trade in it. This will enable the Works to expand and reduce their cost of manufacture to a great deal.

14. There is yet another way of decreasing the cost of manufacture of magnesias and that is by helping and encouraging the manufacture of refined salt side by side with magnesias. I entirely agree with what is stated in paragraphs 18 to 21 (pages 18 and 19) of the pamphlet. In spite of inexhaustible supply of salt (Sodium Chloride) in the country owing to its peculiar geographical situation a very large quantity of refined salt is imported from foreign countries. If indigenous salt could be easily refined and produced by this Company side by side with the manufacture of magnesias, it would certainly tend to reduce the cost of manufacturing the latter because the manufacture of magnesias is carried on only for six or seven months in a year and the charges of permanent establishment, rents, taxes, depreciation interest, etc., are therefore very heavy and borne by magnesias alone. If the manufacture of refined salt side by side with the manufacture of magnesias chloride is established with the protection and help of Government, there is every possibility of these two nascent industries flourishing and adding substantially to the revenue of this country.

15. The Kuda Magnesias Works of the Dhrangadhra State seems to be a formidable rival of the Pioneer Magnesias Works of Kharaghoda, and in order to prevent both these concerns competing and ruining themselves, and as Government is closely interested in the existence of the latter I suggest that some agreement on certain terms and conditions may be made between the two to enable them to work in harmony and co-operation without coming in the way of each other.

16. In face of the widely varying figures of cost of manufacturing magnesium chloride as supplied by the Company, it is very difficult to suggest a certain fixed tariff duty for the protection of the industry, but I suggest that the selling price of the imported stuff should be so regulated by the tariff as not to be less than Rs. 5 per cwt. in Bombay at least for three years, and in the meantime the Company may be asked to submit a proper basis of the cost of manufacture by effecting strictest economy in their various items of cost. This should not be very difficult for the Company now as the prices of fuel, wages and other materials have fairly settled down.

Copy of letter No. 125-1, dated 25th October 1910, from G. L. MacGreger, Esq., M.A., I.C.S., Collector of Salt Revenue, Bombay, to the Superintendent of Industries, Bombay.

In returning the copy of the enquiry regarding the grant of protection to the Magnesium Chloride industry, received with your letter No. W. 12—721 of 11th instant, I have the honour to state as under.

2. The trouble with this industry is that the Indian demand for Magnesium Chloride cannot amount to more than 4,000 tons (value at 3/8 a cwt. equals Rs. 2,80,000) on the firm's own showing. The demand outside that from the mills is negligible. Cotton mills are situated, the bulk of them in Bombay, a few scattered over India. Ahmedabad, Calcutta, Sholapur, Madras, Gokak, Viramgam, and Wadhwan being places known to me. Bombay on account of its damp climate takes less magnesium chloride than Ahmedabad. The

Bombay conditions prevail also in Calcutta and Madras. The maximum demand for this Company's chloride would therefore be confined to Gujarat, Wadhwan, Sholapur and Gokak mills and any mills in Upper India, or a total number of looms which will be less than half the number in Bombay itself. I think the estimate of 4,000 tons is therefore rather high. The Pioneer Works are able to turn out that quantity, therefore they can never be worked to their full capacity.

3. The other manufacturer is the Dhrangadhra State, whose factory is at Kuda, 51 miles further from mill centres outside Kathiawar than Kharaghoda. As the Dhrangadhra State has bound itself to charge the same rate of royalty as Pioneer Works pay, the latter should be able to undersell them owing to their proximity to the market. But the curious position exists now that we have given up charging a royalty and have gone into a profit sharing scheme, last year there were no profits to share. So presumably the Dhrangadhra State's hands are now free and it may by bounties, cheap freights on its own line or otherwise make its works a formidable rival to the Pioneer Company, and there will be two competitors for the 4,000 ton demand, even if the foreigner is squeezed out by a tariff. I do not know what the State works can produce but it should be a considerable quantity seeing that they have used this manufacture as a lever to upset an agreement that had been binding on them for over 20 years. Neither plant will be able to work up to its full capacity or one will kill off the other. If neither Company can work up to its full capacity overhead charges must remain unnecessarily heavy and a reduction in prices become more difficult. Also neither of these factories can work throughout the year unless the stores of mother liquor are protected from the monsoon.

4. This application is however not in the interests of the Pioneer Works alone, but of the whole indigenous industry consisting of both the factories. The import of magnesium chloride from the United Kingdom is negligible. Practically all of it comes from Germany. If protection is given it will have to be given to keep the German product out. The Pioneer Company state that the latter commands a higher price in the market than their article, because the Kharaghoda article is grey in colour. As the Government royalty has gone, the cost would be at least Rs. 1.8 a cwt. cheaper or average Rs. 3.1.9. The cost of containers Rs. 1.2.0 per drum, seems rather heavy, it is equal to the cost of manufacture. Drums are not returnable, probably because the contents corrode them, but they may be more useful than the imported drums, at the other end after they have been emptied. To that extent the Pioneer's drums will be more valuable than the containers of the imported article but I do not know if mill owners consider much trifles. Judging by the huge heaps of scrap in every mill compound they do not.

5. It will be seen that in their original application to the Government of India for protection (page 20 of the printed pamphlet) they asked for a 200 per cent. *ad valorem* tariff. In their reply to the questionnaire they have reduced this to 50 per cent. But the price at which the Pioneer Works say they can pay the stuff down in Bombay, includes certain items which appear to be unnecessary. For instance godown rent is charged in Bombay and profits are calculated on this and also on railway freight. I do not think it should be necessary to store stuff in Bombay, it is a great saving in handling charges if it is railed direct to the mill, and I do not see why they should claim a profit on out of pocket expenses such as railway freight:—

I would work out the costs as follows:—

	Rs.	A.	P.
Production cost	3	1	9
12½ profit	0	6	3
Freight to Bombay	1	0	0
Plus Government profit presumably 12½ per cent.	0	6	8
	<hr/> 4 14 8 <hr/>		

The imported article is said to be landed at Bombay at Rs. 2-12-0 per cwt. godown delivery (page 39, Mr. Knight's letter of 15th November 1923). Apart from the prejudice against the colour of the Karaghoda article there is also the price in favour of the imported article. So there is little wonder that Bombay takes nothing from the Pioneer Works. To counteract this result require a duty of 80 per cent. (page 42). The Company says the price in Bombay is from Rs. 3-8-0 to Rs. 3-12-0 f.o.r. so there would be ample margin in case of a protective tariff being imposed to cut the prices there.

6. It is impossible to say when, if ever, the price of the imported article would go back to pre-war rates. It is not only in magnesium chloride that German rates are extraordinarily low. The same holds good of sewing machines, cash boxes, bicycles and a number of other articles which Germany is putting on the Bombay market at prices 50 per cent. lower than the same grade of article from the United Kingdom. This must be due to internal conditions in Germany.

7. It is entirely a question of policy. If Government desires to exclude the German article the protective tariff imposed must be 80 per cent. *ad valorem* (net market rate) or Rs. 2-2-0 per cwt. As regards the claims for protection (page 50):—Question 99 answer is correct. There are large supplies of the raw material, cheap labour, cheap power but not a very large or expanding market.

It should be noted, however, that production of salt at Kharaghoda is being curtailed to 18 lakhs of maunds this year and there are prospects of still further reduction in the near future; but there will be an ample supply of bitterns.

B. The industry could not develop unaided.

C. I do not agree that the industry in 10 years could face unaided the competition of the world. The pre-war rate of Rs. 3-8-0, when Germany had a monopoly could probably stand some cutting, and it would not, I think, be possible to reduce production costs below Rs. 3-0-0, f.o.r. Kharaghoda.

Q. 100. A. As the vats in which the bitterns are stored are in the open air and liable to deterioration from rain in the monsoon, the bitterns can only be obtained at the time of salt manufacture, i.e., from December onwards—working over more than four months would necessitate roofing the vats.

B. Calcutta and Madras would be out of the range of these factories, as the freight would be prohibitive but the number of mills there are practically negligible.

Q. 101. The quantity of Bromine present in the bitterns is only .07 per cent. and in ordinary times it would appear to be hardly worth the cost of recovery.

Q. 102. I agree with the firm.

Q. 103 to 105. I think the protection required is underestimated.

Q. 106. I agree with the firm that the quantity of magnesium chloride required in the textile trade is so small that the protective tariff would not fall on the consumer.

8. If the cotton mill industry expanded enormously as it might do, the demand would increase proportionately but the German article would always compete unless killed by a special tariff.

No. II.

(Letter, dated 24th February 1925.)

With reference to the concluding portion of paragraph 1 of my letter No. 4861-8180-D., dated the 9th January 1925, I am directed by the Government of Bombay (Transferred Departments) to forward herewith for your information a copy of the letter from the Dewan of Dhrangadhra State, No. 68, dated the 30th January 1925, regarding the manufacture of Magnesium Chloride in that State.

Copy of letter No. 68, dated the 30th January, 1925, from the Dewan, Dhrangadhra State to the Government of Bombay.

In continuation of my letter No. 8, dated 12th November 1924, I have the honour to inform you that the Magnesium Chloride Industry in this State had to be dropped as the local product was unable to compete with the German made Magnesium Chloride in prices, which were much less than the actual cost of the production of Magnesium Chloride and of drums in which it was packed.

The competition of foreign made and specially of German-made Magnesium Chloride began to be very seriously felt nearly two years ago and since then our contractor had to drop the idea of manufacturing Magnesium Chloride at the State Salt Works at Kuda, as the local made Magnesium Chloride had no chance of competing with the similar product from foreign countries. In the opinion of the Darbar, it would be very encouraging if the Government extend generous protection to the important local industry.

Witness No. 5.

THE SIZING MATERIAL COMPANY, LIMITED.

WRITTEN.

(Letter, dated 14th October 1924.)

We are in receipt of your letter of the 13th instant with reference to the c.i.f. price and market price of Magnesium Chloride and in connection with same we have tabulated below our average c.i.f. selling price of this article from the month of April 1923 up to the present month, and trust this is what you require:—

	C.i.f. selling price per ton.	Market price per cwt. ex stock.
	£ s. d.	Rs. A. P.
April	4 5 0	4 4 0
May	4 0 0	4 0 0
June	2 17 6	2 12 0
July . . . . .	..	2 8 0
August . . . . .	..	2 8 0
September . . . . .	..	2 8 0
October	3 2 6	3 0 0
November	3 5 0	2 12 0
December	3 10 0	3 0 0
January (1924)	3 4 0	3 8 0
February	3 12 6	3 8 0

	C.i.f. selling price per ton.	Market price per cwt. ex stock.
	£ s. d.	Rs. A. P.
March	3 15 0	3 12 0
April	3 15 0	3 14 0
May	4 0 0	4 4 0
June	4 2 6	4 6 0
July	4 7 6	4 12 0
August	4 7 6	5 0 0
September	5 0 0	5 4 0
October	6 2 6	5 4 0

You will note that we have omitted to give you a price in sterling for the months of July, August and September as during that period we neither sold direct to a mill nor did we import any of this article but you may take it for granted that the price during these three months would be round about £3-0-0 per ton c.i.f.

Witness No. 6.

MESSRS. CHIMANLAL KALIANDAS & CO., BOMBAY.

WRITTEN.

(Letter, dated 20th December 1924.)

We beg to acknowledge receipt of your letter No. 1010, dated 13th October, from Poona and also your cable from Calcutta asking us to inform you of the prices of the Magnesium Chloride and in reply have to state that we do not import this article direct from Home and so we are not in a position to supply you with the information as required by you. However, we have inquired into the local market and from the facts which are at our disposal, we may inform you that the indent price for the Magnesium Chloride since April 1923 varies from £4 to £4-17-6 per ton nett c.i.f. Bombay. The market price here during this time was about from Rs. 4 to Rs. 5-2-0 per cwt. nett.

We may write to you that we are not in a position to give you any further information in the matter and it would be better for you to write to some other firms for the details required by you for the purpose intended.